SHIPPING WORLD



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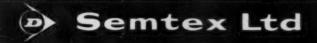
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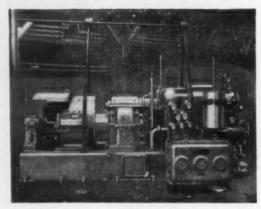
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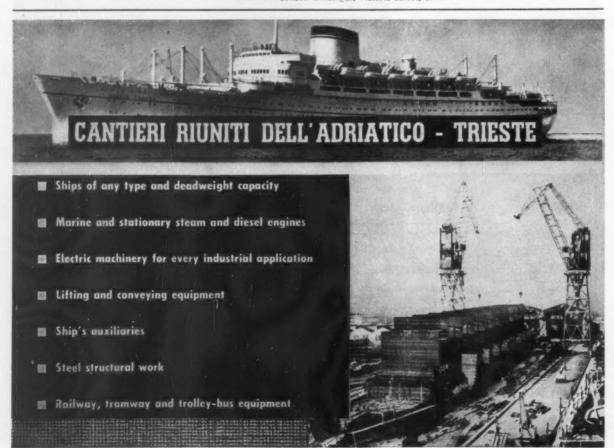
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THE SHIPPING WORLD

SELF-HELP FOR SHIPPING

THE highlight of the past year for the British shipping industry has been, of course, the shipping policy document and recommendations submitted to the Government a few weeks ago. Coming so soon before the annual report of the Chamber of Shipping, it naturally robbed the latter of much of its heaviest ammunition, although it found a few more good rounds in its pouch when it came to dealing with the more recent manifestations of American maritime policy. Thus it was to be expected that the two resolutions presented to the Chamber's annual general meeting would be directed towards the need for Government action, over shipping policy in general and coastwise shipping in particular. What was interesting to note was the stress which two of the principal speakers (Mr W. Errington Keville in his presidential address, and Sir Nicholas Cayzer in support of the first resolution) laid on the necessity for the shipping industry itself to use its own efforts to the best of its ability to resolve its problems.

Sir Nicholas emphasised the importance of an awareness, certainly by managements, that "we must harness the forces of change and move forward with them". He stressed the emphasis of adopting the right attitude towards things as training, psychology, work study and research. He made a special point of the attitude towards public relations and the Press, and the importance of shipping companies and the industry as a whole creating, in the modern term, a public image.

"Advertising has become a major factor in our daily lives. We in the shipping industry are a peculiar race. On occasions we can be very forceful, yet when it comes to advertising ourselves or our service it seems to me we almost suffer from a false modesty. This is a field of endeavour to which I think insufficient attention has been paid". It was clear to Sir Nicholas that while the industry needed the help of the Government in many matters, "we must be sure that we are asking them to do only those things that we are unable to do ourselves, and we must be ready to face, if necessary, reorganisation and reorientation in our industry, if it is going to make it more efficient".

In his presidential address Mr Errington Keville touched upon the same theme and asked some pertinent questions. "We are asking the Government to help us," he said, "where we cannot help ourselves. For our part we must make sure that where we can help ourselves we are doing so to the very utmost in every sphere of our activities. Are we as efficient in our industry today as we should be? Do we enter into consultation with each other on technical matters sufficiently? Are we doing enough in the matter of combined research, or are we still wedded to our own pet ideas in ship design and operation?" Such exhortations from two prominent British shipowners lend hope to the contention that if British shipping falls behind the rest of the world it will be through no fault or shortcomings of the industry itself.

Current Events

A Stabilising Influence

THE address of Mr R. H. Jones, chairman of the Liverpool Underwriters' Association at the annual meeting, presented a brief but clear exposition of many of the problems which are facing marine underwriters today. Many shipowners who are at this time negotiating renewals of their annual insurances on hulls which are adversely affected by the Joint Hull Agreement will be interested in his remarks-that his firm belief was that the scales were always held with an equal poise by the Joint Hull Understanding. Such is the conviction of many marine underwriters and, indeed, the Joint Hull Formula has been a stabilising influence in the market since its inception. It is without doubt a benefit to those who require marine insurance cover for ships. Unfortunately on occasions one hears of particular instances where the operation of certain aspects of the formula detracts from these advantages. As Mr Jones pointed out in his address, shipping and marine insurance are interdependent.

Nuclear Hazards

THE CHAIRMAN of the Liverpool Underwriters' Association also highlighted a curious divergence of practice between the marine market and the non-marine market on the question of damage by nuclear hazards. The nonmarine market now incorporates an exclusion of all damage or liability as a result of radioactive contamination. This is effective in all insurances in the non-marine field, whereas their marine colleagues include the risks of nuclear hazards to the interest insured in their full conditions or all risks cover. There is, of course, the point that insurance cover for damage done by nuclear or radioactive material to other property or persons is still in the exploratory stage in the marine market. Mr Jones had this interesting comment to make on this topic in the form of a question—Is it morally right to underwrite a risk, accept the premium thereon and yet have no certainty of being able to discharge all the liabilities which may arise over ten years from the time of acceptance?

Cargo Risk Rates

SPEAKING at the 143nd annual general meeting of the Association of Underwriters and Insurance Brokers in Glasgow the chairman, Mr J. Gordon Stewart, said that the recession in world shipbuilding, the continuing unfavourable state of the hull market, and marked inconsistencies in cargo risk rates at present combine to make any form of long-term planning a most difficult task indeed. "Difficulty, however, is far from disaster, and I would certainly not align this Association with the prophets of doom who insist that British shipbuilding is dving, that our manufacturing industries cannot compete in export markets, and that as a nation we must therefore resign ourselves to playing a minor role as poor relation in world trade." In merchant shipping, he said, it was gratifying to find that an increasing number of importers were buying on a C & F basis, and arranging their marine insurance in this country where, in the event of damage to the subject matter insured, they could rely on prompt and efficient settlement of claims. In the general field of cargo risks many underwriters felt that current rates were too low, and leave insufficient margin-if any-to provide for a major loss. There was a tendency for the Institute All Risks Clauses (Cargo) to be applied to interests which might more correctly be covered on W.A. or even F.P.A. conditions, and it would appear that a certain amount of rationalisation was necessary to clarify this position.

War Risk Insurance

LAST week announcements were made by the various marine underwriting and insurance brokers' associations that the Institute War and Strikes Clauses (Hulls) Time have again been revised and these will be published under date 1 March 1961. It is understood that these new clauses will be a further alternative to those now in current use under the dates 1 October 1959 and 1 October 1960. The previous cancellation notice of seven days to be given by assured or underwriter has now been extended to 14 days' notice and a 90-days' restriction has been inserted to qualify the meaning of "a prior hostile act" in the Automatic Termination Clause.

Navigators and General Insurance

SINCE the former head office of the Navigators & General Insurance Co Ltd was destroyed by enemy action in 1941, its various offices have been spread over many parts of the City of London, but it has a new building, which was officially opened on Friday by Viscount Simon, chairman of the Port of London Authority. Appropriately enough, Woodruffe House, as it is called, is near Trinity House, and convenient for Oceanair House, the headquarters of the Merchant Navy & Airline Officers Association. Founded in 1921, the brain-child of the present chairman, Captain W. H. Coombs, the Navigators & General Insurance was formed with the principal objective of enabling merchant navy officers to ensure against the effects of cancellation of their certificates of competency, but it now transacts all classes of insurance. Nevertheless it strongly maintains its maritime origins and every member of the board of directors, as well as most of the senior male staff, has served at sea; while for many years the female staff comprised the daughters of seagoing officers, although apparently it has been difficult to maintain this practice in recent years. The proud boast of this company over the past 40 years has been that it "settles its claims in a prompt and seamanlike manner".

New Ships for Old

THE former Belgian liner Jadotvillle was renamed Chitral and commissioned into the Far East service of the P & O-Orient Lines last week. She sailed on her first

voyage yesterday (Tuesday) from the London Docks for Penang, Singapore, Hong Kong and Japan. A sister ship, the Cathay, formerly the Baudouinville, will sail on April 12. These liners will carry first-class passengers only, whereas the Cathage and Corfu which they replace carried first and tourist class. With the entry of these two new vessels the service has been extended beyond Hong Kong to Japan. Voyage times will be shortened by eliminating calls at Bombay and Colombo, and the two ships together with the Canton will provide a regular sailing on the 17th of each month. The needs of Bombay and Colombo will be met by more calls by the Australian vessels, some of which will also be routed to the Straits on their homeward passage. The Chitral has accommodation for 240 passengers and was built in 1956 by the Chantiers de L'Atlantique at St Nazaire. The cargo capacity is 532,758 cu ft grain, 462,973 cu ft bale and 16,704 cu ft refrigerated. The main machinery comprises two sets of steam turbines of Parsons design constructed by the shipbuilders. The Cathay was built by the S.A. Cockerill-Ougree, of Hoboken, Belgium, in 1957. Neither ship has required any alteration for her new service and both were in exceptional condition when handed over. It is interesting to note that these ships are among the first passenger liners the P & O Company has ever bought secondhand, and also that when the Canberra is delivered later this summer the P & O Group will have received about 112,700 tons of passenger ships costing about £40,000,000 in less than 12 months.

Shipbrokers' Centenary

THE shipbroking firm of Killick Martin & Co Ltd celebrates its centenary today. This company, one of the largest in the business, was founded 100 years ago by a clipper ship master, Captain James Killick. The history of Captain Killick and the firm he founded is told in a book published to mark the centenary, The China Bird (42s, Chatto & Windus Ltd). The story follows Captain Killick from his years of command, when among his ships was the famous Challenger, a British-built reply to the American tea clippers, through his retirement from the sea and his partnership with James Henry Martin in a firm of shipowners and brokers, to the present activities of the company as shipbrokers and owners' agents, for lines serving the Far East and West Africa. The company gave up shipowning in 1886, when steam competition and mounting repair costs made their ships uneconomic, but it is the story of the Killick clippers, their performances and construction, which form the main interest of the book. Captain Killick was not sure that China tea could be successfully carried in steel ships driven by steam. Other agents and brokers approached the firm with a view to cooperation in forming a steamship company to serve the Far East, but the Captain declined their offers-a decision which has occasioned some regret in his successors. Remembering the unfortunate hesitation of Captain Killick over steam, they have not neglected more modern forms of transport, and act as air chartering brokers for three airlines. In addition the company handles all forms of air traffic, both passenger and cargo.

Westinghouse Turbine Licence for Fairfield

THE announcement that the Fairfield Shipbuilding & Engineering Co Ltd, Glasgow, has signed a licence and technical assistance agreement with the Westinghouse Electric International Company, New York, brings another make of marine propulsion machinery into the range of those already being built under licence in Great Britain. So far as steam turbines are concerned Richardsons, Westgarth & Co Ltd, West Hartlepool, have for many years built Brown-Boveri machinery under licence, and Alexan-

der Stephen & Sons Ltd. Glasgow, were granted a licence last year by De Laval, Stockholm, for the manufacture of their steam turbines. There are, of course, several British firms building foreign diesel engines under licence. The licence granted to Fairfield gives exclusive manufacturing rights within the United Kingdom for marine turbines incorporating Westinghouse techniques, and also permits sub-licences to be granted to other turbine manufacturers in the U.K. This is the second major engineering step which Fairfield has taken in recent years, for in 1958 they had decided to cover fully all interests in nuclear marine propulsion by forming a consortium with Mitchell Engineering Ltd, Peterborough, and Combustion Engineering While the granting of more foreign Inc., New York. licences to British engine builders gives more choice to shipowners, it seems a pity, putting it mildly, that we are unable to produce a wider range of efficient propulsion machinery here at home.

New Portuguese Passenger Ship

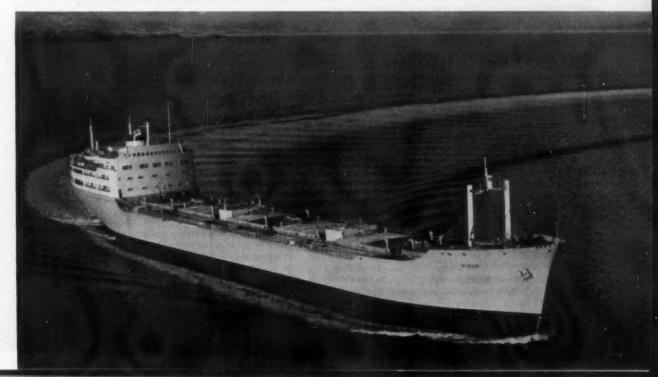
THE Portuguese passenger liner Funchal, which was launched from the Elsinore Shipyard on February 10, is bound to attract considerable attention in Portuguese and Danish as well as in international shipping circles. 12,000 grt, and valued at about Kr40 mn (£2 mn) she is the biggest passenger vessel built in Denmark so far and, incidentally, the biggest vessel ever launched in the Elsinore yard; but all the skill accumulated by the yard in building such famous ships as the Venus (Newcastle-to-Bergen), the Aallotar (Stockholm-Helsinki), the train ferry Trelleborg (Trelleborg-Sassnitz), the Kronprins Frederik and Kronprinsesse Ingrid (Harwich-Esbjerg), besides a number of Danish train ferries and overnight passenger vessels, is being put to service in this exacting job. Ordered by the Empresa Insulana de Navegação, the Funchal is to replace the Lima in the service from Lisbon to Madeira and the Azores, with occasional cruises in the Mediterranean and the Caribbean Sea. Her overall length is 500.5ft, with a beam of 65ft and a draught of 20ft 2in. She will be powered by two Parsons steam turbines and her boilers will be built by the yard under licence from Babcock & Wilcox. Her speed will be 21½ knots. Equipped with Denny-Brown stabilisers, she will comfortably accommodate 500 passengers and carry a crew of 66 officers and men, besides 142 catering staff.

The Fire Protection Association

THE Fire Protection Association was established in 1946 by the Fire Offices' Committee for the purpose of disseminating technical information about all aspects of fire protection and prevention and to promote a practical understanding of these matters on land, at sea and in the air, in industry and at home. To establish the authenticity and status of this new organisation the title of Fire Offices' Committee Fire Protection Association was chosen, but the purposes and status of the Association are now sufficiently understood to enable a simpler name to be used. It will therefore now be known simply as the Fire Protection Association. The change of name will in no way affect its many activities, which are aimed at reducing the number of fires, both in industry and in the home, especially in view of the present upward trend. The activities include the provision of a centre where information on all aspects of fire prevention, protection and firefighting is collected and from which it is disseminated freely. Already its library of technical literature and fire reports constitutes one of the best records of fire experience available in the country and this fund of information helps it to answer over 1,600 technical inquiries every year. The appalling increase in the national fire wastage which has occurred in recent years (£25 million in 1958, over £40 million in 1960) demonstrates the urgent need for a much wider understanding of the dangers of fire and for the precautions that must be taken to avoid them.

THE "RUNA" ON TRIALS

THE 22,800-dwt bulk carrier "Runa" was built for A/S Ruth (Hagb. Waage), Oslo, by A. S. Bergens Mek. Verksteder, Bergen, and ran her trials in January. A motorship with six large cargo holds, she is the first of a series of three for the same owners. Of 14,837 grt, she has an overall length of 560ft 6½in, a moulded breadth of 71ft 10in, a moulded depth of 48ft and a summer freeboard draught of 34ft 4in. The main engine is an 8-cyl Gotaverken turbocharged diesel of 760mm bore and 1,500mm stroke. The continuous output is 10,000 bhp at 112 rpm in normal service operating on heavy fuel, to give a fully loaded trial speed of about 16 knots on a daily consumption of about 38 tons. It can be seen that the sheer strake is rounded



ON THE "BALTIC"

WHY HAVE FREIGHT RATES NOT APPRECIATED?

By BALTRADER

THERE is some disappointment on the Baltic Exchange. Why do not rates of freight show more buoyancy when so much tonnage has been fixed out of the market in this year which is still very young? The Chinese charterers continue chartering vessels on time basis, always preferring the fast and economical types but sometimes being content with ships of less attraction. They also have inquiries to fill for sugar from Cuba to China and rice or cereals from the Far East to Cuba, orders for transport of fertiliser from the near Continent and Adriatic to China and, last but not least, wheat or barley from Australia or British Columbia to China. At short intervals the Baltic Chartering Committee, on behalf of the Government of India, comes into the market for wheat carriers from the North Pacific to India and from the Gulf of Mexico to the same destination. The River Plate has been quite active, taking vessels for the long voyage to Japan which removes them from the market more effectively than the 22-days run home. The Czechs have still to charter tonnage to implement their purchase of 200,000 tons of grain. Heavy recent chartering from Cuba to Russia includes a contract for 50,000 tons. Spain is buying a great deal of grain and has quoted for 75,000 tons from Eastern United States for loading next month. The Australian Wheat Board, in addition to its large sale to China, has been busy selling to Italy and has chartered a considerable number of ships for discharge in that country. The charters in question include some tankers, and it is of some historic importance that this year has seen the first tankers to load bulk grain in Australia, the first of them being for discharge in China. The fixture of the largest ship to load grain in Australia was recently referred to on this page. Last week she arrived for her cargo of about 20,000 tons and it was quite an occasion.

Some Optimism Warranted

But to come back to the point, there has lately been much chartering done, and there seems to be plenty more to come. Shipbrokers want to know why rates have not appreciated considerably; charterers have their day when owners tumble over each over to take what is offered, but when it is the owner's turn, charterers are not surprised if they have to pay up. Perhaps the owners have been rather too easily satisfied with the general rise which did take place late last year, although they would hardly consider that the present level of freights justifies their capital expenditure and their services. There is, of course, not a cloud the size of a man's hand to herald the end of the oil drought and the prophets do not expect the tankers to be well occupied with carrying oil for two years; the recent fixture of a number of tankers to load grain in Australia for the first time, while being a source of much interest and no doubt satisfaction to the Australian Wheat Board, is a cause of unease.

Nevertheless in spite of the large and not easily predictable supply of very large fast vessels, the general feeling on the "Baltic" is that the well spread demand warrants some optimism, even though occasional bunching of tonnage may knock a little off the rate paid. In point of fact the market was enlivened last week by the appearance of employment for eight ships to load heavy grain from the U.S. Gulf of Mexico to Japan, all of which was quickly covered at rates rising to \$10.25, an improvement of 50 cents compared with the rate previously accepted. It is the trans-Atlantic grain rate which is the

most vulnerable to the pressure of the extra large ships; many ships also have had their grain fittings erected and it pays to run back and forth in the Atlantic; keeping in the grain trade to cover the expense of fitting. The charterers, of course, take advantage of this somewhat limiting element in the owners' choice of business.

The River Plate has provided a satisfactory number of cargoes to Japan consisting mainly of maize and pollards also a small quantity of pellets which are not much heard of, but owners who have loaded this commodity say it is not objectionable although it may involve a shift of berths. Wheat from the Plate is hardly available for export, owing partly to unfavourable weather conditions but mainly to the discouragement of the sowing of wheat. It is strange that a Government which has so valuable an asset for export should limit its production while favouring some industries which cannot compete in the world markets. The prospects of the maize surplus, however, are good and it seems likely that a market will be found for it in various parts of the world, possibly including China.

The Freight Markets

A moderate amount of chartering has been arranged for trans-Atlantic grain, while there was activity for grain from the United States Gulf to Japan last week at higher rates. Cuba figured frequently in the reports of fixtures, particularly for discharge in the Black Sea and Baltic as a result of Russia's large purchases of sugar. Fixtures include: Kyratingo, 12,000 tons, heavy grain, milo or soya beans, U.S. Gulf to Yokohama-Moji range, \$10.35, March 10/25; about 6 vessels, 10/12,000 tons, U.S. Gulf to West Italy, \$7.25, wheat, between early April and end May. Tanker, 15,500 tons, U.S. Gulf to West Italy, \$6, wheat, March 20/April 10; Caribbean Wave (tanker), 15,000 tons, heavy grain, U.S. Gulf to Antwerp, Rotterdam and Amsterdam, \$4, f.i.o., heavy grain, February 24/ March 2; Jarita, 11,000 tons, heavy grain, U.S. North of Hatteras to Avonmouth, 46s 3d, March 11/22; vessel, 9,000 tons, heavy grain, up River Plate to Durazzo (Albania), 72s 6d, 800 tons daily discharge, free, May; Syra, 499,000 cu ft, Philippines to Antwerp-Hamburg range, 18 cents per foot, f.i.o., April 1/30. Vessel, 9.000 tons, manganese ore, Vizagapatnam/Ghent, 58s, f.i.o., March 11/25; a number of vessels, Cuba/Black Sea, sugar, 60s, free of taxes; contract, 75,000 tons sugar, Cuba to Baltic, 55s, f.i.o., February to September, charterers' option further 25,000 to 40,000 tons, October to December; vessel, 9,500 tons, wheat ex silo, West Australia to United Kingdom, 82s 6d, June 1/30; vessel, 10,200 tons, general cargo and sova beans, China to Cuba, 68s 6d, March 15/31, combined with Cuba to China, sugar, 91s 6d basis South China, f.i.o., frees taxes. Time charters include: Merchant Prince, 9,490 tons dwt, 532,000 cu ft bale, 11 knots on 10 tons diesel oil, 18s, West African round. delivery Birkenhead, March 3/4 (Palm Line); Merchant Royal, 12,599 tons dwt, 619,000 cu ft bale, 141/2 knots on 21 tons fuel oil, 23s, West Coast South American round, delivery Antwerp, February 28/March 1 (C.G.T. Line); Formentor, 12,850 tons dwt, 580,000 cu ft bale, 131/2 knots on 201/2 tons intermediate fuel, 31/2 tons bunker sea fuel. 22s, 6/9 months, delivery Clyde, February 27/March 10 (Chinese charterers); Barfonn, 14,865 tons dwt, 700,000 cu ft bale, 153/4 knots on 27/28 tons intermediate fuel and 2 tons diesel oil, 23s, trip, delivery Amsterdam redelivery Australia or New Zealand, March 4/11.

CHAMBER OF SHIPPING ANNUAL MEETING AND PRESIDENTIAL ADDRESS

THE 84th annual general meeting of the Chamber of Shipping of the United Kingdom was held in London on February 23. The retiring President, Mr Hugh Hogarth, moved the adoption of the annual report and statement of accounts, and reported progress in the acquisition of property between the Chamber and the Baltic Exchange which would enable plans for the construction of a new building to go ahead. The election of Mr W. Errington Keville as president for the ensuing year was proposed by Sir Robert Ropner and seconded by Sir Herbert McDavid. A vote of thanks to the retiring president was proposed by Mr R. H. Senior, seconded by Mr C. Raymond Cory, and carried with acclamation. The election of Mr David Robinson as vice-president was proposed by Sir Donald Anderson and seconded by Mr J. Houston Jackson, in the absence of Mr Stewart J. Browne. After formal business had been concluded, Mr W. Errington Keville delivered his presidential address.

The Presidential Address

ABSTRACTS FROM MR W. ERRINGTON KEVILLE'S ADDRESS

OUR merchant fleet has never been more important to this country's economy than it is today. We have nothing to be ashamed of in the past. The development of our Empire, later our Commonwealth, owes an immense amount to the enterprise and initiative of shipowners for more than 100 years.

Let me remind you of some of the main developments in sea transport in which British shipping has played a leading part, and the resultant benefits to mankind.

Where would we have been without refrigeration in ships, developed and brought to outstanding efficiency as it has been during the past 80 years? It has immeasurably improved the standard of living of many countries, including our own. Fundamental changes have been brought about in the food supplies made available to the world. Equally important is the fact that the producing countries, by being able to sell more of their produce because of the advent of the refrigerated ship, have in turn become purchasers of manufactured goods in increasing volume. Thus, the wheels of trade have been kept turning with ever-growing momentum, thanks to the men who first thought of providing refrigerated space on a commercial scale in merchant ships. The names of Bell-Coleman, Haslam and Hall will for ever be identified with the development of refrigerating plants in merchant ships. Without this development our country would not have survived the First, let alone the Second, World War.

Then there are the tankers, which have also been instrumental in bringing about a revolution in human affairs. We know that the early oil companies emerged mainly in the New World around the oil-producing states, but it was to the Old World and Britain in particular, with its vast experience in the technique of ship operation and shipbuilding, that the American oil industry looked for the building and operation of tankers. Indeed, the first real tanker, as we know her today, was designed, built and launched in this country. The influence the tanker has had on man's daily life is so tremendous that it is impossible to think of modern civilisation existing without the products of the petroleum industry—at any rate until the nuclear age is more than a mere phrase.

Of tramp shipping it can be said that no other section of the industry has had to face so great a "sea change." The Kipling picture of the tramp as a somewhat downat-heel poor relation of the ladylike liner, if it was ever true, is nowadays completely false. The layman would find it difficult to distinguish between the modern tramp and a cargo liner and, indeed, many tramps are designed for employment in liner trades on charter to the lines.

There will always be a need for the bulk cargo carrier, but more and more the traditional rôle of the tramp is changing. The tramp has already become specialised—for example for the carriage of ore, of sugar and of newsprint. Tramp ships have also been specially equipped for the carriage of unpacked motor cars. In these and many other directions, it can be seen that shipowners are adapting themselves to the future by bringing their fleets into line with modern trends in trade.

Foresight and Courage

I said earlier that British shipowners have nothing to be ashamed of in the past. Nor have we anything to be ashamed of in the present. In spite of the uncertainties and difficulties, British owners have had the foresight and courage to build many new ships not only to replace old tonnage, but also to cater for the continuing expansion of world trade. Although the proportionate increase in the size of the United Kingdom merchant fleet in 1960 was again markedly smaller than that for the world as a whole, a refreshing feature is that the average age of our ships has been considerably reduced. With the highestever tonnage on the United Kingdom register, this country has the largest active trading fleet in the world, much of it of modern construction-a priceless asset which must never be allowed to be dissipated. The significant fact, however, is that even with this record total, our proportionate share of world tonnage continues to fall.

What then must be done? It will be evident to all who read our survey that British shipowners are determined to stand on their own feet, unaided, so long as this remains possible. The survey recognises that for a particular shipping service or section of our industry, some form of financial assistance may be necessary, if it is to survive. But one would earnestly hope that any measure of help of this nature would be temporary. Certainly few British shipowners would like to find that the acceptance of a subsidy had put them in a straitjacket.

A Common Aim

If we are to continue to depend on our own efforts, we are entitled to ask the Government—as indeed we have

done in our submissions to them—to do their utmost to prevent the shipping policies of other governments from neutralising those efforts.

British shipowners have a common aim with their own Government in striving for the utmost liberalisation of shipping throughout the world. It is therefore not surprising that we have urged upon our Government the need for reaching a closer identity of interest with our friends in the United States on shipping matters.

In my submission the shipping policies of the United States and its Allies must be examined on the broadest possible basis within the framework of N.A.T.O. and regard must surely be paid to the interests of those Allies whose lifeblood is shipping and whose continued existence must depend on the maintenance of strong mercantile marines.

Military and Economic Strength

Among member nations of N.A.T.O. there exists the closest unity of purpose. All know full well that much depends on economic strength. Indeed, the shield provided by the military side of N.A.T.O. would become quite ineffective were the economic wellbeing of the alliance not soundly based. This depends in turn on the economic strength of each. Complete understanding of the common aim may be taken for granted, but are there not weaknesses in the way in which the attempt is made to achieve that common aim? I am thinking particularly of the approach to the question of shipping.

I do not propose to elaborate the various aspects of United States shipping policy which are causing concern to shipowners in the United Kingdom and other countries, because the subject is dealt with in detail in our survey. There is, however, one disturbing feature which is not touched on in that document, although it is referred to in our annual report.

In recent months there has been growing evidence of a determination upon the part of the United States authorities to exercise a rigid control of the lines serving trades to and from the United States by means of a series of Regulations and Orders under the Shipping Act of 1916, one of the objects being to require the production of documentary records going back over a great number of years, many of which in the case of non-American lines are only available in the countries affected.

There is no doubt that the pursuit of these investigations must cause considerable alarm among non-American shipping lines engaged in trades to and from the United States, who endeavour to provide cheap and regular services to that great country. Persistence in these investigations can only lead to confusion and international misunderstanding.

Our unity of purpose with the United States is so close that we do not want to fire broadsides across the Atlantic or even to engage in sniping. However, the whole subject of United States shipping policy is now so urgent and important that it calls for discussion at the highest level.

We are asking the Government to help us where we cannot help ourselves. For our part we must make sure that, where we can help ourselves, we are doing so to the very utmost in every sphere of our activities.

Are we as efficient in our industry today as we should be? Do we enter into consultation with each other on technical matters sufficiently? Are we doing enough in the matter of combined research or are we still wedded to our own pet ideas in ship design and operation?

The Safety of Life at Sea Conference held in London in the spring of last year, in which I had the honour of participating, amply demonstrated the wealth of knowledge and experience available in this country on technical matters. I sometimes wonder whether we are collectively making sufficient use of this accumulated knowledge and experience.

In general I have the strongest possible belief that British shipping, even with every form of help the Government can give, will prosper only in proportion to the efficiency and enterprise displayed by its own shipowners.

In the work we have done to produce our survey we can claim in all modesty that we have in large measure prepared the ground for the Government. We now ask for practical action in the same way that we are determined to take practical action within our own industry. I am sure that this will be forthcoming.

What I have said will leave no doubt about the importance, not only in my year of office, but in the years that follow, of much closer collaboration with the Ministry of Transport than even in the past. In that collaboration, the Chamber of Shipping will, of necessity, continue to take an increasingly important part. Indeed, the need for a virile and active Chamber of Shipping is demonstrated with every day that passes.

The world is on the move both by sea and by air. The population of the world is growing—too quickly in the opinion of some people—but what is of special significance is that the growth of trade is allied, not so much to this population increase, but to rising standards of living. I have seen this for myself in the many parts of the Commonwealth that I have visited. It is one of the most hopeful prospects in view.

For those engaged in our industry, whether ashore or affoat, a stimulating feature is that every day brings its challenge and opportunity.

The Resolutions

SHIPPING POLICY AND COASTWISE SHIPPING

SIR NICHOLAS CAYZER proposed the following resolution:

That this Annual Meeting of the Chamber of Shipping of the United Kingdom—at this critical time in the fortunes of British shipping—

- Commends to the urgent attention of Her Majesty's Government the policy proposals formulated by the industry.
- (2) Reaffirms the determination of British shipowners to take all steps within their power to maintain and improve the services which shipping offers to trade and commerce and to the travelling public.

The proposer thought that we heard a great deal about self-determination and other high-sounding phrases but not enough about self-help. All sections of British ship-

ping had their own peculiar problems, but they also had much in common. In offices, at the docks, in shipyards, and in the ships, there was a large field of common interest that warranted careful examination. A great deal of thought and work was going on and he believed that there was an awareness, certainly by managements, that we must harness the forces of change and move forward with them.

Sir Nicholas said that they had suffered from strikes in the docks, shipyards, and to a much lesser degree in ships. Most of these strikes were unofficial, but official or unofficial, they did just as much harm. Also the cause of these stoppages on the whole were not related to pay or working conditions. The National Institute of Psycho-



Bombay Harbour painted for Shell by Indian Artist Chandra.

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logy had conducted a series of "Attitude Surveys" in various industrial concerns to find out what could be done among the rank and file to get a different attitude to the job in hand and achieve a greater contentment and thus greater productivity. There could be little doubt that one's attitude to life could make or mar it, and the attitude or morale of those working together was equally important.

Attitude and aptitude went almost hand in hand and it was here that work study could help us. Work study was far removed from the stop-watch techniques. It sought by intelligent examination of the facts to find the best means of achieving a particular task. It sought to make the work easier and more convenient for the operator and by so doing to ensure a greater throughput. In short it sought to put a square peg in a square hole but did not hesitate for a moment to change the shape of the hole and the peg if such a change would simplify the operation.

"Again, if we consider our attitude to research. It is so easy to take the line of least resistance and resent change. If we can recognise that a new idea does not necessarily imply condemnation of the old, we shall have taken a great step forward." Research was vital for, without it (and he was disturbed about the amount which we were doing by comparison with that undertaken by other countries) our ships and our engines would be obsolete or obsolescent before they went into service. "At the same time I recognise how easy it is to be glib in the use of the word research. What do we want? Are we prepared as an industry to make a proper study of our requirements, to formulate our ideas and, if necessary, prepare an unassailable case for the consideration of the appropriate authority?"

In management exactly the same problems existed. If its attitude was not right it would not build up the right team or select the right leaders of the future.

"Attitude to people brings me to 'public relations,' a term that has wide meaning. Companies that are selling goods and services, and this includes shipping companies and the shipping industry as a whole, must have good public relations. We must be able and ready to use the television and radio, for the industry as a whole must create—to use the modern term—an image. Advertising has become a major factor in our daily lives. We in the shipping industry are a peculiar race. On occasions we can be very forceful yet when it comes to advertising ourselves or our service, it seems to me we almost suffer from a false modesty. This is a field of endeavour to which I think insufficient attention has been paid. We have a good product but we must sell it.

"Clearly we wish the help of the Government in many matters, but we must be sure that we are asking them to do only those things that we are unable to do ourselves, and we must be ready to face, if necessary, reorganisation and reorientation in our industry if it is going to make it more efficient."

In seconding this resolution, Mr W. Nicholson heartily endorsed everything that Sir Nicholas had said. "He has asked us to look into a mirror and to decide for ourselves if we like what we see. The implication is that we are not so good-looking as we thought we were and that there is room for a good deal of improvement." Just as shipowners recognised that they had a task and must clearly define their attitude to it, so the Government had a task to help British shipping. But had the Government defined their attitude to that task? They had not—but they must. If we could really feel certain of the Government's determination to tackle their task on the basis of the recommendations made in the survey, then, indeed, we could face the future with quiet confidence.

For so many years now a feeling of frustration had been upon us and it had needed no little courage on the part of shipowners in this country to build new ships, at ever increasing cost, out of their own limited resources, and to trade them in competition, not so much with foreign shipowners as with foreign governments. Yet alongside this display of initiative and enterprise, with-out any form of Government help, was the stark fact that, at a time when the UK. merchant fleet was larger than it had even been before, the deep sea tramp fleet was less by nearly 750,000 grt than its prewar size. An even more striking fact was that, whereas in 1938 the U.K. deep-sea tramp fleet was over one-third of the world deep-sea tramp fleet, its tonnage had shrunk since to less than one-seventh of the world total.

"Is the substantial fall in the actual and relative size of the tramp fleet worrying the Government? I suggest that they ought to be worrying unless, of course, they are confident of being able to create conditions which will encourage British tramp owners to build. If things are allowed to go on as they are, the Government will wake up one day to the stark reality that the size of the tramp fleet has fallen below "danger level," looked at from either the commercial or the strategic point of view."

Personally he was firmly of the opinion that no British shipowner should ever be forced into such an invidious position that he need contemplate leaving the UK in order to obtain the benefits of the much lower level of taxation enjoyed by many of his competitors. It seemed to him all wrong that any of them should have to resort to such artifices and stratagems as Bermuda registration, and he could only hope that the Government could allow the necessary additional taxation relief for the industry so as to prevent a full-scale migration to the West Indies.

"We are asking the Government to give heed to and to act promptly on the policy proposals submitted to them and, for our part, we, as British shipowners, declare our determination to take all steps within our power to maintain and improve the services we offer to trade and commerce and to the travelling public. In this endeavour we must receive the full backing and loyal support of all those who man our ships or serve the industry ashore."

Coastwise Shipping

Mr. A. Desmond Pelly proposed the following resolution on coastwise shipping:

That this Annual Meeting of the Chamber of Shipping of the United Kingdom-

- Desires to stress the importance of a balanced and progressive domestic transport system to the nation's economy and to its security in times of war;
- (2) Recalling the representations about the serious depletion of the coasting fleet made by shipowners' organisations and the officers' and seamen's unions over many years, Records its profound concern that the recently published White Paper outlining the Government's proposals for the reorganisation of the nationalised transport undertakings contains no provision for safeguarding the British coastal fleet against uneconomic competition facilitated by the ability of the railways to trade at a loss with substantial financial assistance from the Government.

Mr. Pelly said that over the last three years one coasting ship had been scrapped or sold abroad every nine days. This, out of a fleet of only 634 ships in 1957, was a very large percentage of the coasting fleet. Coupled with this reduction, one must assume that over the next five years, on age alone, the net reduction annually would be at least the same. Today there were only a few coasting tramp ships being built, mainly for specialised trades. Some family coasting businesses had been severely affected by death duties and high building costs and they also were

unable to reinvest in coasting ships.

On innumerable occasions over many years, successive governments had acknowledged the importance to the country of the coasting trade and had created statutory safeguards against unfair competition by the railways. These safeguards had been a valuable deterrent although they had not by any means prevented the loss of traffic in circumstances where recourse to the Transport Tribunal was not expedient because of the danger of losing the goodwill of the trader, or difficulty in proving unfair competition.

Just over a year ago the British Transport Commission asked that these safeguarding provisions should be repealed. The object was to relieve themselves of the obligation to consult the coasting industry before adjusting rates and to take away the right of recourse to the Transport Tribunal. The Commission stated at the time that they sought to be completely free to quote any rates they thought fit, not only to deal with road competition, but to attract coastwise traffic.

There was nothing in the policy proposals which suggested the imposition of a wholesale control of road haulage but they had suggested that if progress was to be made towards some sensible commercial understanding between the various forms of transport the Government should encourage the development and maintenance of machinery which would enable operators of road haulage to take part in conference discussions. If we were to have a properly integrated transport system, road haulage must be organised to negotiate rate agreements. Surely the Government should give the necessary lead, taking such steps as they thought necessary to secure that agreements between the various forms of transport were not undermined. In the coasting industry this was not a simple matter to deal with, but it seemed to be so wholly wrong in legislating for the future of the railways not to have proper regard to the need for fostering some working understanding with road haulage. Furthermore, the Government must, in the long term, look at the internal transport system of the country overall with the object of ensuring that road, rail and sea were available to industry in the most efficient and economic way.

The railway reorganisation plan gave to the railways such financial assistance that for some years to come they could not be regarded as a commercial undertaking in the normal sense of the word. Whether or not it was right to give them greater commercial freedom, it was surely the responsibility and, indeed, duty of the Government to ensure that this financially assisted form of transport should not be in a position to drive off the seas the coasting vessels which were commercially operated in the fullest sense of the word and which were so vulnerable to the

power of the railway octopus.

Reduction of Coastwise Fleet

In seconding this resolution, Mr W. F. Robertson (deputising for Sir John Fisher) said that today the coasting tramp fleet was only half the size it was in 1939. This reduction was due to three main causes. First, losses sustained in the last war, in which coasters made an invaluable contribution to the war effort. Secondly, to intensified competition from inland transport facilitated, in the case of the railways, by Government financial assistance. which had enabled them to compete with coasters while trading at a loss; and, thirdly, the uncertainty created by the political atmosphere surrounding internal transport and, in particular, the failure of successive Governments to grapple effectively with it. It had now become imperative that coasting owners should have an assurance that competition would be on fair and equal terms, otherwise some 200,000 dwt of coasters would go to the scrap yard in the next five years and there would be no replacement.

During the last 40 years we had seen four major Government measures concerned with the internal transport industry pass through Parliament. The first of these was the Railways Act of 1921, in which modest safeguards for the coasting trade against uneconomic or unfair competition were embodied. Similar provisions, improved somewhat, were included in the Road and Rail Traffic Act of 1933. This was in the days before there was any question of nationalisation. Parliament acknowledged the need for such safeguards, recognising that the scope of the railways' activities enabled them to quote low port to port rates while keeping at a relatively higher level short haul rates on traffics to and from the ports. The Transport Act of 1947, which nationalised rail and much of road transport, also contained safeguarding provisions for the coasting trade, and in 1953, when a further Transport Act was passed de-nationalising road haulage and giving an additional measure of freedom to the railways, the safeguards were preserved and to some extent im-

The common thread that ran through this legislation was now in danger of being snapped. Just over a year ago the British Transport Commission asked to be relieved of the obligations that these safeguards imposed upon them. Although the matter was dealt with by the Coastal Shipping Advisory Committee in a report to the Minister, no answer had been given and the White Paper which recently came before Parliament disclosed that the particular question was still unanswered. This uncertainty was the cause of the deepest concern to coasting owners and had further undermined their confidence in the future prospects of their section of the shipping industry.

The Government's White Paper gave the impression that the railway reorganisation plan would do no more than give the railways "commercial freedom." In fact, however, it went further than that; it proposed to give to the railways such financial assistance that for some years to come, notwithstanding a huge writing off of capital, they could not expect to trade at a profit. How could it be said that this put them in the position of a commer-

cial undertaking?

Uninformed Public Opinion

"As far as the public is concerned there is widespread uninformed opinion which supports freedom for the railways to compete on commercial terms. The taxpayer knows that he has to find some £1,200 million or more and wants to see his money back. Everyone uses the railways in one way or another and is acutely aware of the need for something to be done about them. There the prime facie case lies, and it takes a lot of explanation to dispose of it because, on the other hand, little is known about the services performed by coasters and the important part they play in the national economy.

"To this assembly the situation should be easy to understand. It is discrimination in a different and more virulent form than flag discrimination. It is discrimination by our own Government against our own flag. Industrially it might be expressed in terms of dumping-dumping of surplus services with no other object than to spread over-

heads. It surely must be denounced as unfair.

"It is incomprehensible that the Government which denationalised the steel and road haulage industries should finance the nationalised railways and, at the same time, allow them to use their position to eliminate private enterprise in the form of coastal shipping.

"In these circumstances it is imperative that the legislation that the Government will be introducing to give effect to their proposals for the railways should contain safeguards for coastal shipping against unfair trading."

The Marconi International Marine Communication Company

PROGRESS IN NEW MARKETS

Lord Nelson of Stafford's Statement

THE sixty-first annual general meeting of The Marconi International Marine Communication Co Ltd will be held on March 23 in London.

The following is an extract from the circulated address by the chairman, The Rt. Hon. Lord Nelson of Stafford, LL.D., F.C.G.I., D.I.C., M.I.Mech.E., M.I.E.E.:

There has been some improvement in shipping generally during the year. An unusually large proportion of business recently placed with your company has been for radio equipment for new British tonnage, while the vigorous attention which we have given during recent years to developing our export business is also producing most satisfactory results. New business at home and overseas has more than offset the loss of earnings from rental-maintenance on ships withdrawn from service, and this is reflected in the profit and loss account, where, as you will see, the profit earned for the year was £680,117.

Profit and Allocations

The net profit is £304,276 and £25,000 provided for taxation in previous years is in excess of current requirements so that these, together with the amount brought forward of £167,837 from 1959, make available £497,113.

The interim dividend of $2\frac{1}{2}$ per cent, less income tax, absorbed £38,049 and your directors now recommend a final dividend of 5 per cent, less income tax, amounting to £76,098, making a total dividend of $7\frac{1}{2}$ per cent for the year and the transfer of £223,000 to general reserve, leaving £159,966 to be carried forward.

The figures, relating to a year of certain difficulties in the marine field, reflect the vitality of our company and the wisdom of our policy of exploring new markets abroad as well as at home. Our progress, in the light of these figures, is gratifyingly steady.

Export Business

There has been much emphasis in official quarters and in the Press of late on the need to export. This, of course, is a need of which we were very much aware some years ago when we laid down the foundation of what is now a very vigorous overseas selling organisation. As a result of its activities we now have considerable business in hand for equipping foreign-flag vessels, and a higher proportion of our production than ever before is going to fulfil these orders. They come from all parts of the world, and are for all types of Marconi Marine equipment. Orders from the Scandinavian countries are coming in very satisfactorily following a recent demonstration tour of their ports by our yacht Elettra II. Furthermore, your company's products will be on display, together with those of other Marconi and English Electric Companies, at the forthcoming British Trade Fair at Moscow. I trust that this will further open our way into Eastern markets.

New Equipment

During the year four new names have been added to the catalogue of Marconi Marine equipment. I refer to the "Lodestar" automatic direction-finder; the "Argonaut" 50-channel VHF radiotelephone; the "Metron" depth indicator; and the "Kestrel" intermediate-frequency radiotele-

phone for voluntarily-equipped vessels. All have already met with outstanding success, and many bulk or fleet orders have been placed for these new equipments—in some cases covering the fitting of thirty or forty ships on a single order.

The new single-sideband transmitter, embodying the latest techniques in long-range high-frequency radiotelephony, is proving most successful in service, and I am confident that this will become essential equipment on large passenger vessels. It is already fitted on the larger vessels of the P & O-Orient Group, including the *Oriana* and *Canberra*, and its installation forms part of the refitting of the cable ship *Stanley Angwin*.

Radar

The excellent reputation enjoyed by our high-quality marine radar continues to be reflected in orders received, including a recent one for fitting ten new vessels for Andrew Weir & Co Ltd. The new Empress of Canada will have two Marconi Marine 15-inch "Radiolocator" installations, both with true motion. All these ships will, of course, also have a full range of other Marconi Marine communications equipment and navigational aids. Our entire production of radar equipment is being fully absorbed by orders for home and overseas fittings.

The battery-powered "Consort" radar for small craft is finding a very ready market and we have booked many orders following a tour, by a specially fitted demonstration vehicle, of ports in England, Scotland, Ireland and Wales.

A number of these have come from the fishing industry, which I am glad to say still places great reliance on our equipment in general, fully realising its value to the efficient operation of its boats. The "Fishgraph" and "Graphette" echometers, in particular, are deservedly popular for their fish-finding properties, and I was glad to see that the *Prince Charles*, winner of the Silver Cod Trophy for 1960, used "Fishgraph" echometers, as did the runner-up, the *Falstaff*. We take pride in the contribution we are able to make to the welfare and progress of our vigorous fishing fleets.

Service and Organisation

I am certain that much of our own success—the success of our equipment and the confidence with which it is accepted—stems from the efficiency and world-wide nature of the service we are able to offer to our clients. As you know, we have in recent years invested in the opening of new depots overseas and in the modernising of our facilities at home.

Confidence of Authorities

During the year we have again been fortunate in receiving much encouragement and co-operation from those authorities and organisations functioning with and within the shipping and fishing industries. We have had every assistance from the Post Office; the Ministry of Transport; the Ministry of Agriculture, Fisheries and Food; the Chamber of Shipping and the Radio Advisory Service; and the Shipping Federation.

Oil Topics

MAJOR OIL INSTALLATION ON THE RIVER TYNE

THE Tyne Improvement Commission has approved Shell-Mex & BP plans for building an additional tanker jetty at its ocean oil installation on the River Tyne. This marks an important step forward in the further development of the River Tyne as a major oil importing centre. The new jetty will supplement the existing jetty, which is now inadequate to cater for the increasing number and tonnage of tankers now calling at the installation. The first stage of the project will cost some £300,000 and will be designed for tankers up to 18,000 dwt to be discharged alongside. The second stage will be the removal of the old jetty and the extension of the new jetty, which will cost a further £300,000, allowing tankers up to 28,000 dwt to be berthed at the installation in addition to the 18.000dwt vessels already accommodated. Further developments at the installation in the form of tankage extensions are envisaged in the not too distant future and these will provide an increase of fuel for industry on Tyneside and the North East coast, and will ensure increased energy facilities for industrial expansion and the development of new industries in and near Tyneside. The new tanker quay is additional to the major developments Shell-Mex & BP has carried out at Jarrow since the end of the war at an overall cost of £1,000,000. When the new tanker quay is complete Jarrow will become one of the most important ports of call for large type tankers in the country.

New Jetty at Salt End

THE first of a line of oil tankers will arrive during the next few weeks to discharge its cargo direct to the Salt End industrial estate at Hull and the £1,100,000 investment by the British Transport Commission at the port will open up a new chapter in the working of the port. The money invested by the BTC has gone into new jetties at the tanker discharging points at Saltend and it is expected that the new No 3 jetty will soon be in use. This is 1,592ft in length, of reinforced concrete and steel, and its opening will see the arrival of much larger tankers in the Humber. Along with the building of the jetty, dredging has been carried out at the tanker berths to give 36ft of water on all states of the tide and with this depth tankers of up to 27,500 dwt will be able to come to the new jetty. Before this development only 30ft of water was available.

BP Refinery Developments

THE first exploratory site work for the construction of BP's Northern Ireland refinery at Sydenham near Belfast has started. The initial operation is a series of test borings in the refinery site to find out soil conditions. The tests are expected to take about two months. Up to 30 holes, each with a maximum depth of 90ft, may be sunk. The refinery, the first in Northern Ireland, will have an initial capacity for handling 1,300,000 tons of crude oil annually. It is expected to be commissioned in late 1963 and will involve an initial investment of about £8 million. A major expansion project costing £11 mn is to be carried out at the Antwerp Refinery of Société Industrielle Belge des Petroles, which is jointly owned by BP and Petrofina. The project will give the refinery a total potential capacity of about 8,000,000 tons per annum, compared with the present capacity of some 4,000,000 tons. The main new units included in the project are-a 100,000 barrels per stream day capacity crude distillation unit with an associated gas recovery unit which will increase the potential output of liquefied petroleum gas; a 9,000 barrels per day catalytic reformer for upgrading light distillates; a 10,000 barrels per day hydrofiner for desulphurising gas oil; and a 60

tons per day sulphur recovery plant. Associated with these new processing units will be extensions to the tankage and of the steam and power supplies. In addition, the capacity of the existing catalytic cracking unit is being raised from its present 12,000 barrels per stream day to about 15,000 barrels per day. The expansion project will take about two years to complete and it expected to be commissioned towards the end of 1962. A new petroleum dock is being built by the Antwerp port authorities which will be completed this year. This dock will be capable of accommodating the larger tankers which it is envisaged will be used for feeding the refinery.

Shorter Notes

BP Trading Ltd have announced that with effect from 21 February 1961 they are increasing their spot bunker prices for marine diesel and light diesel oil by 6s per long ton and gas oil by 9s per long ton at ports in South Africa, Indian Ocean ports from East Africa to Burma, Australia and New Zealand.

During 1960 BP Trading Limited (BP's principal trading subsidiary) placed orders for materials, equipment and services to the value of £17,430,000, an increase of over £5 mn on 1959. Of this, orders worth £14,328,000 were placed in the United Kingdom, 66 per cent of the total being for use overseas. Materials were shipped to 47 countries in about 26,000 consignments amounting to 106,000 tons at a freight cost of about £930,000. This involved the use of vessels of more than 200 shipping companies. In addition some 4,200 air shipments were made at a cost of £64,000.

RECENT SHIP SALES

TANK steamer Zenobia Martini (ex-Petroil, ex-Queen Maeve, ex-Oswego, ex-Gargoyle, ex-Pennoil, 4,645 grt, 2,736 nrt, built 1903 by the Grangemouth & Greenock Dockyard Co) sold by "Sancolombo" S.R.L., Genoa, to Italian shipbreakers.

Cargo steamer Flathouse (1,559 grt, 833 nrt, built 1931 by Swan Hunter & Wigham Richardson Ltd) sold by Stephenson Clarke Ltd to Bisco.

Tank steamer Esso Cheyenne (ex-Empire Coleridge, 9,798 grt, 5,783 nrt, built 1942 by Sir J. Laing & Sons Ltd) sold by Esso Petroleum Co Ltd to Belgian shipbreakers, with prompt delivery Tyne.

Motor tanker Mary Stove (ex-Spinanger, 7,329 grt, 4,271 nrt, built 1927 by F. Schichau, Danzig & Elbing) sold by Lorentzen & Co, Oslo, to Belgian shipbreakers.

Turbo-electric tanker San Salvador (10.802 grt, 6,035 nrt, built 1950 by Furness Shipbuilding Co Ltd) sold by Eagle Oil & Shipping Co Ltd to Dutch shipbreakers for £14 per ton light displacement, as lies River Blackwater. She has been laid up since March 1960.

Cargo steamer Rissa (ex-Dunkery Beacon, ex-Empire Flame, 9,905 dwt, 7,096 grt, 4,513 nrt, built 1941 by Cammell Laird & Co Ltd) sold by O/Y Larus A/B, Helsingfors, to Paulins Rederier, Turku, for about £75,000.

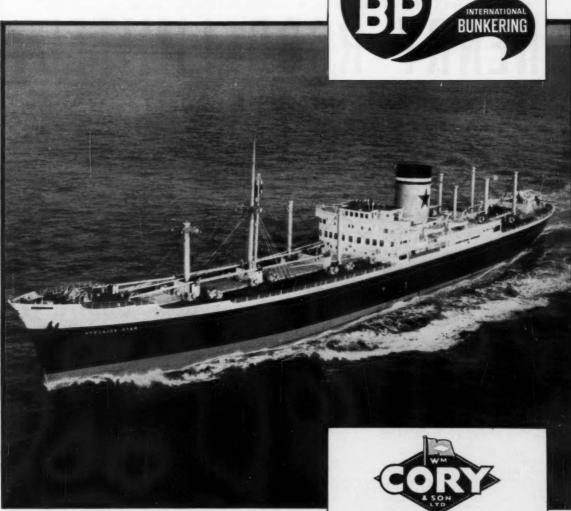
Motor vessel Hindanger (ex-Cape Constantine, 8,000 dwt, 5,227 grt, 3,002 nrt, built Beaumont 1943 by Pennsylvania Shipyards Inc.) sold by Westfal-Larsen & Co A/S, Bergen, to Wilh. Wilhelmsen, Oslo, for about £210,000 and renamed Tampa.

Motor vessel Paula Dan (ex-Cape Ugat, 7,900 dwt, 5,216 grt, 2,834 nrt, built Beaumont 1942 by Pennsylvania Shipyards Inc.) sold by J. Lauritzen, Copenhagen, to Wilh. Wilhelmsen, Oslo, for £210,000.

Cargo steamer *Pentakota* (9,650 dwt, 6,672 grt, 3,824 nrt, built 1946 by Lithgows Ltd) sold by British India Steam Navigation Co Ltd to Turkish buyers for £92,500 with April delivery India.

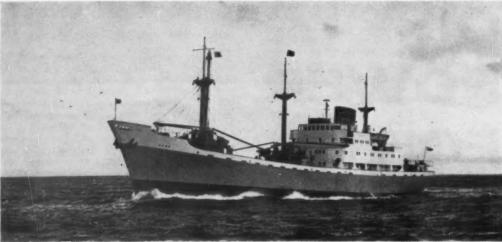
Cargo steamer *Pachumba* (10,060 dwt, 7,282 grt, 4,958 nrt, built 1945 by Wm. Gray & Co Ltd) sold by British India Steam Navigation Co Ltd to Hong Kong trading buyers for £91,000 with delivery India in May.

OIL POWER FOR SHIPS



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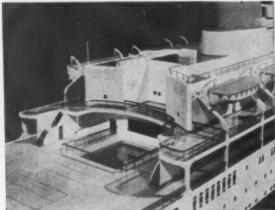


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NEWS FROM OVERSEAS

From THE SHIPPING WORLD'S Own Correspondents

Interest in Bulk Carriers

IN THEIR last report the shipbroking firm of R. S. Platou A/S, Oslo, state that it seems that the interest for bulk carriers is still greatest in Norway. In 1960 Norwegian owners ordered altogether 26 bulk carriers, 16 of which were in the 15-18,000 dwt size group and ten over 22,000 dwt. At the end of 1960 as many as 78 bulk carriers had been ordered for Norwegian account and of these 47 were in the 13-18,000-dwt size group and 31 in the 19-36,000-dwt group, but of these 31 the great majority were of the 22-24,000-dwt type. Only 11 tankers were ordered, but six of these were in the 38-58,000-dwt size group. Swedish yards secured most of the new orders, 12 totalling 350,000 dwt. Norwegian yards are also well represented with as many as 18 orders, but only of 250,000 dwt. Japanese yards received six of 150,000 dwt. German yards had practically the same number as Japan while one order went to Holland and six to France.

Regarding prices the firm mentions that there has been a rising tendency in the price of medium-sized units, while very large ships have been as cheap or cheaper than ever before. A shelterdecker of between 10,500 and 12,500 dwt, which at the end of 1959 could be built for about Kr16 mn cannot be ordered for anything less than Kr17 mn today and while owners in 1959 ordered shelterdeckers of 4,500/6,000 dwt for about Kr10 mn the price today is Kr11 mn. One of the reasons for the increase in price is that the early berths which were first sold, have all been disposed of, and the yards have to take a higher price for later deliveries in order to cover risks in connection with increased wages and price of steel. At Scandinavian yards it is difficult to arrange delivery before 1963 for vessels over 12/15,000 dwt, and there has been considerable competition for the 1962 deliveries which were disposed of late in 1960. Of the Norwegian yards

which build vessels of 1,000/2,000 dwt only a couple can give 1962 delivery and the reason why some yards in 1960 could offer delivery in 1962 was that earlier orders had been postponed.

Credit Terms

R.S. PLATOU A/S are of the opinion that Norwegian yards have been very well able to compete in price, at least with regard to small vessels (apparently from some 10,000 dwt and down), and for such vessels they have been able to offer prices to both Norwegian and foreign owners which have been favourable compared with foreign yards, which have been harder pressed to obtain new orders.

As to credit terms the report says that the large and financially strong yards have been able to offer the best conditions. Generally the credit has been 70 per cent over five to eight years. Such credits can be had at most of the Scandinavian, Continental and Japanese yards, but while most European yards demand security on the new buildings, only Japanese yards have to have some 20 per cent of the loans covered by other collateral. Interest rates are still between 6 and 6½ per cent.

Norwegian Orders

Some new orders have been announced recently. A turbine tanker of 50,000 dwt ordered by A/S Kristian Jebsens Rederi, Bergen, from Kieler Howaldtswerke for delivery in 1963-64; and a bulk carrier of 24,750 dwt for Erling H. Samuelsens Rederi A/S, from Kockums M.V., Malmo. Delivery of the latter is to take place in the middle of 1962, and evidently this is an order placed some time ago. Paal Wilson & Co, Bergen, have placed orders for two 600-tonners at Westermoens Batbyggeri og Mek. Verksted, Mandal. Both are to be delivered in 1962.



FORMER FRENCH PASSENGER LINERS UNDER CONVERSION

THE two former Societe des Transports Maritimes passenger liners "Provence" and "Bretagne" are both undergoing conversion in the same repair yard for different owners. The major work is being carried out by the Officine Allestimento e Riparazioni Navi (O.A.R.N.), at Genoa, in cooperation with Officine Marittime S.p.A. (O.M.S.A.) and the Societa Naval Legno in the case of the "Provence", which is expected to sail on her former route to South America under a joint service agreement with Giacomo Costa fu Andrea, Genoa, on April 5. The "Bretagne", which now belongs to the Chandris group, is expected to leave Genoa for Australia on April 29 under the flag of Panama

Recently Kaldnes mek. Verksted, Tonsberg, delivered the *Trollheim*, a bulk carrier of 28,000 dwt, to Hjalmar Bjorge, Oslo. She is the largest dry-cargo vessel so far built in Norway and is also the largest turbine ship built in this country.

A new forging plant is to be built at Tvedestrand, South Norway, by Gotaas-Larsen A/S, a sister company of Gotaas-Larsen Inc, New York. The new plant will specialise in equipment for ships, and has been named Tvedestrand Skipsstoperi.

Shipbuilding at Trieste

IN THE last year the launching and delivery activity of Cantieri Riuniti dell'Adriatico has been most intensive. During the first quarter of 1960 83,362 dwt of tankers were launched, among them the Agip Bari, 47,700 tons. for the Società Nazionale Metanodotti, Milan, and the British Comet for the BP Tanker Co Ltd, London. During the same period a special tanker for harbour service of 790 tons was launched for the U.S. Government. During the second quarter the most important events were the launching of two tankers of 47,700 dwt for SIOSA Palermox (Amelia Grimaldi) and the Agip Livorno, for the same owners as the Agip Bari, and a floating dock of a lifting capacity up to 28,000 tons for Società Esercizio Bacini, Naples. After a pause in launching activity in the third quarter, in November there took place the launching of another floating dock of 28,000 tons for Officine Costruzioni e Riparazioni Navali, Taranto. Among the deliveries should be mentioned two tankers of 36,600 dwt for Società di Navigazione La Columbia (Esso Roma) and the other one for the Esso Petroleum Co Ltd, London (Esso Dublin); two turbine tankers of 35,000 dwt each for the BP Tanker Co Ltd (British Lantern and British Comet); one motor tanker of 19,678 dwt (Maina Morasso) for Navigazione Mercantile S.p.A., Genoa, and the harbour tanker for the U.S. The beginning of 1961 has been marked by the delivery of the turbine tanker Amelia Grimaldi, 48,517 dwt, for SIOSA, Palermo. Among new orders referring to this year should be mentioned one bulk carrier of 22,400 dwt and four bulk carriers of 35,000 dwt each for own account.



NEW DANISH LPG CARRIER

The liquid petroleum gas tanker "Lilli Tholstrup", 735 dwt, has been launched at the Aarhus Flydedok og Maskinkompagni A/S, Aarhus, for I/S Trans-Kosan (A/S Kosangas), Copenhagen. The principal dimensions are length overall 214ft 3½in, length b.p. 191ft 3¾in, breadth moulded 31ft 2in and depth to shelterdeck 18ft. An item of special interest is that the vessel will be provided with a cooling plant consisting of three compressors, each able to work independently, it then being possible to keep the liquid gas constantly at 10 deg C in any climate. The propelling machinery consists of an eight-cylinder MAK diesel engine developing 1,050 bhp at 375 rpm

MERCHANT SHIPS LAUNCHED IN 1960

Lloyd's Register Summary of World Shipbuilding

DURING 1960 there were launched in Great Britain and Northern Ireland 253 merchant ships of 1,331,491 grt. This total is 41,104 tons less than in 1959, but a comparatively steady output has enabled Great Britain and Northern Ireland to maintain second place among the shipbuilding countries of the world. The general world trend is downward, but a few countries have still achieved individual records. Tankers totalled 46 of 618,372 grt, an increase of 89,444 tons compared with 1959. This tonnage represents 46.4 per cent of the total output for 1960. Of the total tonnage launched 27 ships of 145,895 tons (11 per cent) were for registration abroad. A total of 464,981 tons was launched abroad during 1960 for registration in Great Britain and Northern as compared with 449,073 tons during 1959.

Overseas Production

There were launched during the year 1,767 ships of 7,024,953 tons: a decrease of 348,156 tons compared with 1959. Decreases in tonnage launched were considerable for Sweden, the United States, West Germany, Norway and Italy. Smaller decreases are noted for the Netherlands, Belgium and Finland; while Japan, Denmark and Yugoslavia have approximately maintained their output of the previous year. Against the general trend, France, Spain and Poland have increased their output to individual records, while Canada is at her highest level since 1945.

The countries abroad which built the largest amounts of tonnage for export, shown also as a percentage of total output in those countries, are:

Japan: 923,766 tons (53.3 per cent) of which 428,341 tons were tankers.

West Germany: 784,498 tons (71.8 per cent) of which 307,867 tons were oil tankers.

Sweden: 456,409 tons (64.2 per cent) of which 351,168 tons were tankers.

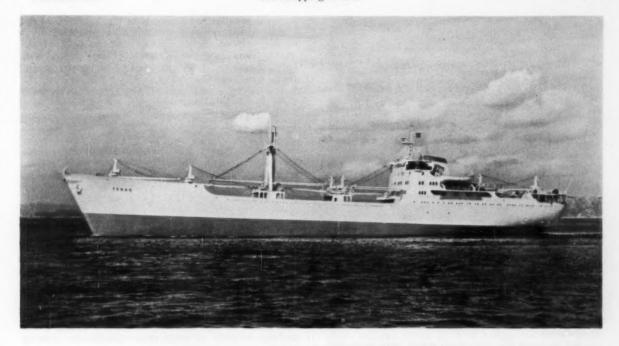
Japan has led the world in output for the fifth consecutive year. Total launched—649 ships of 1,731,656 tons—9,079 tons more than in 1959.

Of the steamships and motorships launched in the world during 1960, 624 of 3,880,130 tons (46.4 per cent) are to be classed with Lloyd's Register.

MERCHANT SHIPS LAUNCHED IN THE WORLD

					G 1960			
	(E		teamships	of less	than 100 to	tons g	Total	Percentage
Country of		3	Tons	141	Tons		Tons	of World
Build		No.	Gross	No.	Gross	No.	Gross	Tonnage
British		140.	0.033	140.	01002	140.	01000	ronnage
Commonweal	ele -							
Great Britain								
N. Ireland		33	574,507	220	756,984	253	1,331,491	15.93
Australia	***	33	14,038	5	14,457	6	28,495	
	***		14,030	3	14,427	0	20,773	1
Canada:		4	71,428	7	2.557	1	115,919	
Coast		-		2		> 15	113,213	
Great Lakes	***		34,934	3	7,000	4	12 401	1.92
India	***	1	361	3	13,040	- 1	13,401	
Other								
Commonwea	ith				2 2 47		2 2 42	. 1
- Countries -	***	******	_	9	2,247	9	2,247	
Argentina		-	-	2	3,000	2	3,000	0.04
Austria	***	_		-		-		. ==
Belgium	***	2	54,200	14	75,432	16	129,632	
Brazil	***	-	-	1	1,200	- 1	1,200	
China(National	ist)		23,106	-		1	23,106	
Denmark		1	24,540	52	194,783	53	219,323	
Egypt (U.A.R.)		-	-	- 1	1,970	1	1,970	
Finland		-	-	38	76,902	38	76,902	
France		11	361,133	43	233,289	54	594,422	7.11
Germany (Wes	(3	17	364,889	237	727,250	254	1,092,139	
Greece		-	-	3	16,506	3	16,506	0.20
Indonesia		-	-	7	1,844	7	1,844	0.02
Irish Republic		-	MARKET .	-	return	-	-	_
Italy	***	13	299,178	39	134,662	52	433,840	5.19
Japan	1.00	23	627,563	626	1,104,093	649	1,731,656	20.72
Lebanon		-	_	1	539	-	539	0.01
Mexico	***		-	1	475	- 1	475	0.01
Netherlands	***	7	139,455	181	427,538	188	566,993	6.79
Norway	10.5	- 1	18,400	79	179,533	80	197,933	
Philippines	***	_	***	1	1,600	1	1,600	
Poland	***	23	82,519	47	144,702	70	227,221	2.72
Portugal	***	2	18,560	7	5,155	9	23,715	
Spain	***	7	26,354	71	134,935	78	161,289	
Sweden	***	7	183.849	80	526,810	87	710,659	
Turkey	***	i	760	5	2,122	6	2,882	
U.S. of America				-			4,002	0.03
Atlantic Coast		15	320,540	13	11,907)			
Gulf Ports		6	60,015	9	2,725			
Pacific Coast	***	7	73,900	í	239	60	484,978	5.80
Great Lakes	***	í	12,170	8	3,482			
	63.3	1	16,300	20	144,767	21	161,067	1.93
Yugoslavia	***		10,300	20	174,707	4.1	101,007	1.73
World Total	530	187	3,402,699	1,833	4,953,745	2,020	8,356,444	100.00

* Returns are not available for The People's Republic of China, East Germany and Russia.



Cargo Liner "Tenos"

JAPANESE-BUILT SHIP FOR SWEDISH OWNERS

THE Swedish shipping company Rederi Sirius A/B has taken delivery of a new cargo liner for service between Australia and Japan. This vessel, the Tenos, 7,817 dwt, has been built by the Mitsui Shipbuilding & Engineering Co Ltd at their Tamano yard. This is the second vessel to be built by Mitsui for regular scheduled service between Australia and Japan, the first being the Milos, 6,700 dwt, built in 1956 for Rederiaktiebolaget Helsingborg, and many new ideas have been included in the design at the request of her owners. A/B Rederi Sirius is an associate company of Rederi A/B Helsingborg, which now has six other ships on the Australia-West Pacific run. These include the Aros, Citos, Delos, Milos, Samos and Nitos. (The Samos built by the Elsinore Shipbuilding & Engineering Company, Denmark, was described in The Shipping World of 2 November 1960).

The *Tenos* has been built as an open shelterdecker vessel with a long forecastle, poop and with the machinery space arranged between Nos 4 and 5 holds. No 5 hold and the tweendeck space abaft the engine room are insulated and used as refrigerated cargo space. Immediately forward of the engine room there is a deep tank for the carriage of vegetable oil. On trials with the ship fully loaded in ballast condition a mean speed of 18.54 knots at 148.5 rpm was attained over a triple run.

Cargo Handling

So that both light and heavy cargo can be handled efficiently, the *Tenos* has been equipped with a combined system of electric deck cranes and derrick booms including six 3-tons electric deck cranes, six 5/10-tons derrick booms and a 35-tons heavy derrick boom. One 3-tons electric deck crane has been installed for each cargo hatch from No 1 to No 4, while No 5 has been equipped with two. A self-staying bipod mast has been placed between No 2 and 3 cargo hatches which have four of the 5/10-tons derrick booms and the heavy derrick boom. By switching

Principal Particulars

		alleren a	*** *** ***			
Length o.a.	***	***	***	***	454ft	1½in
Length b.p.		***	***		410ft	lin
Breadth, mo	ulded	***	***	***	60ft	
Depth to she	lter de	eck, mo	oulded	***	36ft	7in
Depth to ma	ain de	ck, mo	ulded	***	28ft	
Draught		***			25ft	13/4 in
Deadweight		***	***	***	7.817	tons
Gross tonna	ge	***			5,776	tons
Net tonnage		***	***	***	3,098	tons
Machinery o			***	***	7,400	bhp
Service spee	d (app	prox)			17 kr	ots
Cargo capac	ity					
Grain					484,482	cu ft
Bale		***	***		454,067	cu ft

the position of the boom, the heavy derrick can be made to reach cargo holds Nos 2 and 3.

The two 5/10-tons derrick booms aft of No 4 cargo hatch have been attached to the front of the bridge house. For cargo handling, the 5/10-tons derrick booms have each been equipped with 5-tons electric cargo winches and electric topping winches, possessing a lifting capacity of 600 kg and stopping capacity of 5 tons, which are located on top of the winch deck and at the top of the front wall of the bridge house. The two electric winches for the 35-tons heavy derrick boom which are located forward of No 3 cargo hatch are equipped with a 10-tons heavy-lift drum controlled by clutch so that it can be used independently of the 5-tons drum. The electric deck cranes, electric cargo winches and electric warping winches are powered by alternating current and the controls incorporate the use of the Ward Leonard system. They have been made by ASEA of Sweden.

The hatch covers for the forecastle hatch, No 5 hatch on the poop deck and No 1 hatch on the shelter deck and main deck are of the steel pontoon type. For the other hatches, the MacGregor single-pull type hatch covers



The passenger's smokeroom

made of steel were adopted. They were made strong enough so that logs can be loaded on without risk of damage. Covers for No 3 and No 4 hatches are of flush steel with packings so that the surface of tweendeck and the upper surface of hatch cover make one smooth surface. This makes it easier to use fork lifts and trucks on board. The hatch covers for the refrigerated cargo hold were made of steel with hinges and packings, and have insulation on the underside.

It will be noted that steel hatch covers have been used in all cases thus reducing the time and energy necessary for opening and closing the hatches. Furthermore, the weather deck hatch covers are of the steel pontoon type and for all hatches that require a comparatively long time to close, hatch tents have been provided which can be put up quickly in case of sudden rainfall to protect the cargo. The permanent awning above the weather deck has been made of water-resistant aluminium plate.

Special attention has been paid to providing means of lashing down cargo within the cargo space so that it will not shift. Snatch blocks, ring plates and eye plates have been located at suitable intervals on the shell inside and on the bulkhead. In addition, the portable stanchions and shifting boards in the tween deck space on the sides of the hatches are of the "I" and "S" type and have been made of sea water-resistant aluminium to make them lighter and more convenient in handling.

The *Tenos* has accommodation for twelve passengers. There are six single-rooms, and three double-rooms, all located on the poop deck, each containing a private bath and toilet. The ship has a smokeroom, veranda, bar, passengers' dining room, small kitchen, turkish bath etc.



The captain's day room

Special attention has been paid to the decoration of the passengers' quarters. Full-size tapestries have been hung on the walls of the smokeroom and the walls of the main stairway are decorated with relief work finished with Japanese lacquer. The weather part of the poop deck and above have been covered with Dex-o-Tex and for the deck covering of the interior passageways and cabins, Vinyl tile or rubber tiles on Semtex has been used.

The cargo holds, in addition to natural ventilation, are equipped with a mechanical ventilating system specially designed and installed by Mitsui. Two to four fans of the reversible type have been provided for each dry-cargo hold and have been installed in the winch house and the fan room aft of the forecastle. This mechanical ventilating system changes the air in the cargo holds eight times per hour, and in the tweendeck cargo space at the rate of twelve times per hour. By reversing the direction of the fans and air dampers, it is possible to make the air in the holds to circulate, or to supply fresh air into, or exhaust air out of the holds.

No 5 cargo hold aft of the engine room and tweendeck cargo space have been fitted with refrigerating system and insulation. The latter space is used as the refrigerated holds Nos 1 and 2 and the former is used as the refrigerated hold No 3. The total capacity of the refrigerated cargo holds is 26,182 cu ft. The holds were designed to carry meat and to be kept at a temperature of -25 deg C and can also be kept at temperatures suitable for carrying fruit etc.

Propelling Machinery

The propelling machinery consists of a Mitsui-B & W type DE-962-VTBF-115 two-stroke, single-acting, crosshead diesel engine with turbocharging, having a cylinder bore of 620mm and stroke of 1,150mm. The engine is designed to develop 8,300 ihp (7,400 bhp) at 150 rpm with an mip of 8.0 kg/cm². On trials the ship was fully loaded in ballast condition and attained a mean speed in a triple run of 18.54 knots with the engine running at 148.5 rpm.

Designed to burn heavy fuel oil of up to 1,500 sec Redwood No 1, the engine has three turbochargers designed by Brown Boveri & Co and manufactured by Ishikawa-jima-Harima Heavy Industries Ltd. The engine is connected to the propeller made of A1-bronze by J. Stone & Co, who also supplied the spare propeller of the same construction.

The auxiliary machinery consists of three turbocharged five-cylinder four-stroke single-acting diesel engines of the Mitsui-B & W type 525-MTBH-40, each capable of developing 425 bhp at 514 rpm. Each engine is directly coupled to an AC generator of 350 kVA, 3-phase, 440 volts with a frequency of 60 cycles. The generators can work in parallel.

SAFETY IN SHIPYARDS

Four new Orders, made by the Minister of Labour under the Shipbuilding Regulations, 1960, prescribe the particulars to be kept of the results of examinations of certain equipment, and of the annealing of chains and lifting gear made of wrought iron. These Orders will come into operation on March 31, the date on which the Shipbuilding Regulations will become effective. Under them information will have to be kept about examinations of chains and lifting gear, other than rope slings; breathing apparatus and accessories; ropes and rope slings; and the annealing of chains and lifting gear. The particulars which include dates of previous examinations, by whom they were carried out, any defects and the action taken to remedy these, are required to enable H.M. Factory Inspectors to confirm compliance with the Regulations, or to determine responsibility in the event of non-compliance or neglect.



Cargo Vessel "Estrella"

SWEDISH-BUILT SHIP FOR NORWEGIAN OWNERS

THE FIRST delivery this year from the Eriksberg yard in Gothenburg was a cargo vessel for the Norwegian owners Det Bergenske Dampskibsselskab, Bergen. This ship, the Estrella, 9,600 dwt as a closed shelterdecker, is the first vessel to be equipped with hatch covers with hydraulically-operated hinges constructed by A/B Konex. These can be operated from a central position, and it takes only about one minute to open each hatch cover.

The principal particulars of the Estrella are as follows:

Length o.a			***	466ft
Length b.p	* * *	***		430ft
Breadth, moulded				60ft
Depth, moulded to a	main	deck		28ft 6in
Depth, moulded to sl				38ft
Draught as open sh	elter	decker	***	25ft 6½in
Draught as closed sh	elter	decker	***	28ft 6in
Deadweight, open				7,850 tons
Deadweight, closed				9,600 tons
Gross tonnage				6,300 tons
Machinery output	***		***	7,600 thp
Contract speed, open		***	***	17½ knots

The Estrella has been built to the highest class of Det Norske Veritas and has five cargo holds, four of which are located forward and one aft of the machinery space. A feature of the vessel is the arrangement of the refrigerated holds which are built on both sides of the main cargo hatches in Nos 3 and 4 holds in the upper and lower tweendecks. Separate small hatches for these refrigerated spaces are arranged at the sides of the main cargo hatches on the shelter deck and on the main deck.

Steel hatch covers of Eriksberg type are fitted in Nos 3 and 4 tweendecks, and each cover is divided into six sections each measuring about 8ft by 16ft 5in. As stated, the hydraulic hinges operating these covers are of a new type constructed by A/B Konex, and the covers can be opened in about one minute from a centrally placed control position.

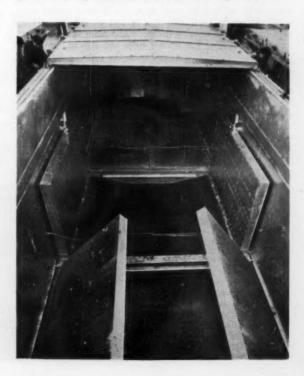
Another type of hydraulically-operated hatch cover in which the operating parts are contained in the "hinge" of the cover was designed by Götaverken A/B, and fitted on board the cargo liner Gudrun Bakke (SW, 21.1.59). Details of the unit, which is known as the Hydrautorque, were given in The Shipping World of 5-12 August 1959, together with a sketch.

The total cargo hold capacity is 505,850 cu ft (grain),

which includes 97,660 cu ft of refrigerated cargo space. The *Estrella* has one mast, one pair of derrick posts and eight deck cranes for lifts of 3 to 5 tons. One of the derricks at the foremast is capable of lifting 30 tons.

Accommodation for the officers and twelve passengers has been arranged round the engine casing in the deck houses. Here also are the dining saloon and smokeroom, messes and day rooms. The crew's accommodation has been arranged in the poop and in the after deckhouse.

The propelling machinery in the Estrella consists of a turbocharged single-acting six-cylinder Eriksberg-B & W oil engine with cylinders of 740mm bore and a stroke of 1,600mm. The output is 7,600 bhp and the contract speed as an open shelterdeck vessel is 17½ knots.



The Flume Stabilisation System

ANTI-ROLL DEVICE USED IN AMERICAN SHIPS

A HYDRAULIC system for stabilising ships in rough weather has been engineered and developed in the United States by John J. McMullen Associates Inc. New York. Known as the Flume stabilisation system, it has only one moving part-the water which it contains-and consists simply of a pair of internal tanks, one on each side of the vessel, connected by a flume or duct. This system has been installed in the passenger liner Matsonia, 18,655 grt, also in the Vema, a research vessel, various missile tracking ships operated by the U.S. Government, U.S.

Navy icebreakers and other ships.

The weight of the ballast restricted to the high side is the source of the principal roll dampening effect in the Flume stabilisation system. This principal stabilising moment can be expressed as what in a heeled ship would be known as free-surface effect, but in a rolling ship has been both amplified and changed in phase to become a pure damping moment. This control is effected by nozzles or restrictions; i.e., rounding of the vertical corners where the flume and tanks are joined. method of control causes the free surface moment vector of the partially filled tanks to lag 90 degrees, thereby dampening the roll of the vessel, and at the same time counteracting the tendency of the vessel to roll past the perpendicular of the wave slope. The system improves the roll stabilisation relative to the perpendicular of the wave slope, thereby decreasing apparent roll to an even greater extent. The manufacturers state that this phase relation of roll is just as important as actual roll reduction, because it is the roll away from apparent vertical which causes discomfort to passengers. The depth of water in the flume at the centreline plane of the ship remains the same throughout the transfer cycle and is dependent upon the total amount of water in the entire system rather than the movement of the vessel.

It is the flume nozzles that always keep the free surface moment at 90 degrees away from the normal (static) position and acting about the axis of roll of the ship. They also prevent the vessel and the water from synchronising, as would occur if the system were too lightly damped, a potentially dangerous possibility in the old U-tube system.

The Flume stabilisation system can be likened to the partial flooding of two interconnected athwartship deep tanks. The interconnection makes it a modified U-tube type, as contrasted with the conventional or Frahm U-tube type. This interconnection provides the free surface, basic to operation of any passive tank system. The important differences are the addition, in the Flume system, of the control element, the nozzles, and the elimination of the air vent valves. It is effective at all speeds, even when the

This system has no mechanical parts or complicated control devices; therefore no attention or maintenance is necessary, and malfunctioning is impossible. There are no external parts so that drydock maintenance and inspection are not necessary. Bilge keels are also unnecessary, eliminating repairs; and the combined reduction of roll and the absence of bilge keels is claimed to result in a hull and wave resistance reduction of about 7 per cent. Adjustments in the water level in the tanks are all that should be necessary to correct for variations in metacentric heights in cargo vessels. No special training or complicated calculations are needed. In the Matsonia, the water level is fixed and checked whenever convenient; no more than once per voyage. Visible through sight ports and illuminated by watertight lights are permanent height markings on the inside bulkhead for the purpose of checking water levels.

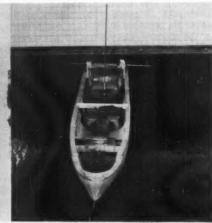
Low Cost of Installation

In terms of capital investment, the Flume stabilisation system costs less than 25 per cent of other mechanical methods of stabilisation in the case of conversions, and even less when incorporated in new designs. Stabilisation has to date been restricted by high initial and operating costs to passenger vessels, where the competitive demands of service made stabilisation mandatory. On the other hand, the low initial cost and absence of operating expense of this system permits its use not only in passenger vessels, but also in cargo ships of all types.

The amount of water ballast required in the system varies between ships and is significant as a loss factor of either deadweight or cubic capacity in comparison to the total displacement of the ship. In the case of motor vessels, reserve diesel oil can be used in the system instead of water. On board the Matsonia, the 85 tons of water in the flume amounts to less than 1/3 of one per cent of the total displacement. When use of the full deadweight capacity is more desirable than stabilisation, such as in a fully loaded tanker, the flume ballast can be dumped or, better still, liquid cargoes can be carried in the system.

- (Left) 1/108 scale model rolling in regular beam swells (19 sec. period, 1.7 degree surface wave slope) at synchronous condition. Flume inopera-
- (Right) Same model. Same swell condition. Flume operative and visible near stern. Roll as shown is that after correction for scale effect present in the model, as illustrative of performance full-scale, extrapolation on basis of bench test results. 14 degree roll dampened to 3 degrees





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Shipowners	No. of Ships	Туре	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) × B × D.(dft.)	Delivery	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
				Yards in Great	Britain an	d North	ern Ireland			
R. S. Dalgleish	1	Cargo	14,300	-	1962	-	4-cyl Doxford	-	N.E. Marine	Bartram & Sons
British Transport	1	Launch	-	42 × 12.25 × 6	1962	-	Twscr. diesel	180	Ruston & Hornsby	J. S. Watson (Gainsborough)
Commission					Overseas 1	fards				(
Per Lodding, Oslo Sig. Bergesen & Co, Stavanger	2	Tanker Tankers	41,000 56,000	648 × 98 × 48.75 —	1963	16.5	8-cyl diesel Geared turbine	16,800	Shipbuilders —	Burmeister & Wain Ch. de l'Atlantique
Sig. Bergesen & Co, Stavanger	1	LPG	4,360	-	-	-	Diesel	****	-	Ch. Navals de la Ciotat
Den Norske Amerikalinje A/S, Oslo	1	Cargo	11,300		1963	_	Diesel	6,650	Sulzer Bros	Drammen Slip
Den Norske Amerikalinje A/S, Oslo	1	Cargo	11,300	-	1962	-	Diesel	6,650	Sulzer Bros	Bergens M.V.
Melsom & Melsom, Larvik	1	Tanker	58,000	-	1963	17.1 (T)	De Laval geared	20,000	Shipbuilders	Kockums M.V.
Kon. Java-China Paket. Mij. Norwegian owners	(458)	Cargo Tanker	9,000 58,000	=	1962	=	B & W diesel Geared turbine	6,800	Shipbuilders —	P. Smit, Inc. Kockums M.V.
A/S Kristian Jebsens Rederi, Bergen	(436)	Tanker	50,000	_	1963/64	-	Geared turbine	-	Shipbuilders	Kieler Howaldtswerke
Eastern Seas Transport Corp	1	Bulk	24,750 (15,400)	565 × 79 × 46.67	_	-	B & W diesel	8,750	Shipbuilders	Mitsui S.B. & E. Co, Tamano
E. H. Samuelsons Rederi A/S	1	Bulk	24,750	-	1962	_	****	-	-	Kockums M.V.

LAUNCHES

Date		Shipowners	Ship's Name and/or Yard No.	Туре	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) × B. × D.(dft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
				Yards	in Great	Britain and Northern	Ireland	d			
Feb.	_	Cory Bros & Co	Llandoff City	Tug	-	-	-	8-cyl diesel	240	Kelwin	Richard Dunston, Thorne
Feb.	_	Shipbuilders	Hessle Flyer	Lighter	400	(120) × 21 × 9	-	Diesel	115	-	Richard Dunston, Thorne
Feb.	5	M. B. Dredging Co	Garcem (74)	Grab dredger	(200)	-		NIL	-	-	John R. Hepworth & Co, Hull
eb.	14	Booker Line	Booker Venture (817)	Bulk	10,600 (9,450)	(469) × 62.5 × 35	(T)	Sulzer	4,500	G. Clarke	Austin & Pickersgill
eb.	16	Ballachulish Ferry Co	_	Car ferry	-	-	-	-	-	-	James Noble, Fraserburgh
Feb.	16	Atlantic S.N. Co	Cerdic Ferry (508)	Ferry	1,600 (2,700)	361.42 × 52.5 × 38.5 (12.75)	14	Twscr. 16-cyl diesels	3,360	Ruston- Paxman	Ailsa S.B. Co
	16 16	Glendee Fishing Co T. & J. Harrison	Eredene Tactician (845)	Trawler Cargo	(214) 10,920 (8,850)	(116) × 23 × 12 (488.2) × 62 × 38.75	16	5-cyl diesel 6-cyl diesel	550 8,000	H. Widdop Shipbuilders	John Lewis & Sons Wm. Doxford & Sons
eb.	17	Simonsen & Asterup	Mogen (826)	Bulk	22,000 (15,300)	538.25 × 73.33 × 45.2 (32.1)	15	6-cyl G.V.	7,500	N.E. Marine	Sir Jas. Laing & Sons
Feb.	17	Ross Trawlers	Ross Falcon (1466)	Trawler	(265)	107.5 × 24.5 × 12.5	-	5-cyl diesel	550	Ruston & Hornsby	Cochrane & Sons
Feb.	17	Shell Tankers N.V.	Sepia (1278)	Tanker	65,500 (40,000)	817.75 × 112.5 × 57.75 (42.5)	16.5	Geared	22,000	Shipbuilders	Cammell Laird
Feb.	17	H. L. Taylor	Tokio (525)	Trawler	(210)	115 × 25 × 12.25	entity.	6-cyl diesel	700	Mirrlees Bickerton & Day	Goole S.B. Co
Feb.	20	Bunch Steam Fishing Co	Padgett	Trawler	(600)	137.2(152.33) × 28 × 14.5	-	6-cyl Werkspoor diesel	1,050	J. D. Holmes	Cook Welton & Gemmell
					0	verseas Yards		Gleset			
	-	Republic of China	Democracy IB	Cargo	3,660	_	_	Diesel	-	_	Shanghai Shipyard
	19	Ube Kosan K.K.	Kiyoyasu Maru (209)	Cement	8,600 (6,550)	-		Diesel	-	Ito Tekko	Kasado Dockyard
	26	Hamburg-Amerika Line	Kulmerland (765)	Cargo	(8,600)	-	18	Diesel	9,000	M.A.N.	Deutsche Werft
lan.	30	Commissao de Marinha Mercante, Brazil	Volta Redonda (N001)	Cargo	(4,950)		_	Diesel	Andrews.	Attacke	Ishikawajima do Brazil, Rio de Janeiro
Feb.	4	J. M. Skaugen	Skauborg (1536)	Cargo	24,500 (15,800)	551.2×75×46(31)	15.5	M.A.N. diesel	9,000	Shipbuilders	Mitsubishi S.B. & E. Co, Nagasaki
Feb.	7	St. Gotthard Schiffahrts	Castagnola (587)	Cargo	12,000	452.67 × 60.5 × 37.25 (25.75)	15	Diesel	5,400	Sulzer Bros	Flensburger Schiffsbau
Feb.	7	Tonnevolds Rederi	Tonnevold (755)	Tanker	(26,000)	670.25(700) × 96 × 49.5 (36.9)	17	Twscr. diesel	19,000	Shipbuilders	Gotaverken
Feb.	8	Sigurd Herlofsen & Co A/S, Oslo	Black Swan (451)	Cargo pass.	8,650 (6,000)	450(484.1) × 61.1 × 39.2(26.75)	17.5	8-cyl M.A.N. diesel	7,200	Shipbuilders	Kockums M.V.
Feb.	10	Empresa Insulana de Navegacao	Funchal (353)	Pass.	(9,500)	454.42 × 62.5 × 38.1 (20.25)	21.5	Geared	13,500	Parsons Marine	Elsinore S.B. Co
Feb.	10	Wilh. Wilhelmsen	Tarn (530)	Cargo	12,600 (7,161)	470 × 68 × 31.5(31.1)	19.5	10-cyl B & W diesel	12,500	Shipbuilders	Eriksbergs
Feb.	12	Jugobanka	Sevojno (473)	Tanker	33,000 (20,000)	629.95 × 88.58 × (34)	16.75	Geared	15,000	Yugoturbina	Brodogradiliste 3 Maj
Feb.	14	Rethymnis & Kulukundis	Pollux (740)	Cargo	(8,000)	470 × 64.5 × (30.5)	15	Diesel	5,600	Sulzer Bros.	A. Vuyk & Zonen
Feb.	20	C. H. Sorensen & Sonner, Arendal	Ariel (200)	Bulk	17,700	554.1 × 70 × 41.25(30)	15	8-cyl G.V. diesel	7,500	Shipbuilders	Uddevallavarvet
Feb.	21	Rederi A/B Rex	Husaro (365)	Cargo	9,200	394 × 55.9 × 37(26)	14.75	Diesel	5,000	Gotaverken	Oskarshamns Var

TRIAL TRIPS

Date	Shipowners	and/or Yard No.	Туре	Tons d.w. (gross)	L.b.p.(o.a.) ×B.×D.(dft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
			Yard	s in Great	Britain and North	ern Irel	and			
Feb. —	Port Line	Port Alfred (1630)	Refrig.	(9,650)	470(500) × 67.5 × 41	-	7-cyl B & W diesel	-	Shipbuilders	Harland & Wolff, Belfast
Feb. 20	F. T. Everard & Sons	Annuity (515)	Coastal tanker	2,200 (1,597)	250(266.25) × 40 × 16.9(15.9)	-	4-cyl diesel	1,200	Newbury	Goole S.B. Co
				0	verseas Yards					
man.	U.S.S.R.	Pavlin Vinogradov	Cargo	(5,000)	-	-	Free-piston	4,000	S.I.G.M.A.	Baltic S.B. & E. Works, Leningrad
Dec. —	Fearnley & Eger, Oslo	Fernbrook (327)	Cargo	(6.751)	416(455.2) × 59.25 × 35.58(28.9)	16.5	6-cyl diesel	7,000	M.A.N.	Rheinstahl Nordseewerke

Do	ite	Shipowners	Ship's Name andjor Yard No.	Туре	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) × B. × D.(dft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Dec.	27	U.S.S.R.	Bielsk (131071)	Cargo	5,000 (4,180)	331.5(355.2) × 49.75 × 26.25(219)	12.5	Recip steam with exhaust	2,500	Zgoda	Stocznia Gdanska
Dec.	29	U.S.S.R.	Goncarrow (115004)	Factory trawler	1,300 (2,600)	241.1(278.9) × 45.25 × 23.33(17.75)	13.3	8-cyl Sulzer diesel	2,400	Zgoda	Stocznia Gdanska
Dec.	30	Govt. of Indonesia	Sangihe (15900)	Cargo pass.	4,350 (2,965)	342.9(374.67) × 48.25 × 21.67(20.9)	15.5	8-cyl diesel	4,200	M.A.N.	Stocznia Szczecinska
Dec.	31	U.S.S.R.	Dvinoles (151403)	Cargo	6,205	377.25(406.2) × 54.9 × 27.58(22.95)	16	5-cyl Sulzer diesel	4,500	Zgoda	Stocznia Gdanska
Dec.	31	U.S.S.R.	Severoles (151404)	Cargo	6,205	377.25(406.2) × 54.9	(T)	S-cyl Sulzer	4,500	Zgoda	Stocznia Gdanska
Jan.	_	A. P. Moller	Nelly Maersk (160)	Cargo	(4,638) 4,320	× 27.58(22.95) 279 × 47.25 × 28.25	(T) 13.5	7-cyl diesel	2,520	M.A.N.	Bijker's A.B.
Jan.	_	Cia. Maritima Torquato	Penelope (3898)	Cargo	(2,800) 14,550	(23.5) (518.42) × 63.67 × (30.2)	14.8	7-cyl B & W	7,600	Shipbuilders	Hitachi S.B. & E.
Jan.	-	Zim Israel Nav. Co	Eshel (894)	Cargo	(9,900) 7,185	387.2 × 58.42	14.2	diesel Fiat diesel	3,960	Borsig A.G.	Co, Sakurzjima H. C. Stulcken
Jan.	-	Jadranska Slobodna	Natko Nodilo (160)	Cargo	12,977	× 30(23 58) 460.5 × 61.67 × (26.58)	15.25	Diesel	6,300	Fiac	Sohn Brodogradiliste
Jan.	-	Plovidba Jadranska Slobodna	Lake Botic (156)	Cargo	(9,050) 12,800	459.33 × 61.67 × (29.5)	14.5	Diesel	6,300	Fiat	Split Brodogradiliste
Jan.	-	Plovidba Iino Kaiun Kaisha	Ohshima Maru	Cargo	(9,050)	475.5 × 63.75	17.25	Sulzer	12,000	Shipbuilders	Splic lino S.B. & E. Co
	-	National Development	(51) Philippine Jose	Cargo	(9,250)	× 40.25(30.95) 475.67 × 64.33 × (29.9)	18.25	diesel Sulzer	12,000	lino S.B. & E.	Hitachi S.B. & E.
Jan.		Corp Taikei Kisen K.K.	Abad Santos (3890) Yamohoshi Maru	Cargo	(9,500) 5,200	321.33 × 49.2 × (20)	12.75	diesel B & W	2,850	Co Shipbuilders	Co, Innoshima Hitachi S.B. & E.
	_	Taiheiyo Kisen K.K.	Tenryu Maru		(3,400)	278.67 × 43.25	11.5	diesel UET diesel	2,000		Co, Mukaishima
	-		(17)	Cargo	(2,300)					Mitsubishi Kobe	Tohoku Dock Co
Jan.	-	Nissho Kisen K.K.	Michimei Maru	Chemical	4,100	295 × 45.75	11.5	M.A.N. diesel	2,000	Mitsubishi Yokohama	Usuki Iron Works
Jan.	-	Sven Salen	Antigua (179)	Refrig.	(8,100)	450(493.1) × 62 × 39(27.5)	21.3 (T)	Geared	11,000	de Laval	Oresundsvarvet
Jan.	-	Empresa Nacional "Elcano"	El Baztan (29)	Refrig.	3,500 (2,500)	346.88 × 49.2 × (20)	16.5	Sulzer	3,300	Maquinista	Empresa Nacional
Jan.	******	Det. Bergenske D/S	Estrella (532)	Cargo	7,600 (6,300)	430 × 60 × 28.5(25.5)	17.5	6-cyl B & W diesel	7,500	Shipbuilders	Eriksbergs M.V.
Jan.	20-5K	Norcape Shipping Co (Bermuda)	Naess Pride (1145)	Tanker	65,360 (38,000)	800(848) × 108 × 57 (42.33)	16.2	Geared	20,900	Shipbuilders	Kieler Howaldtswerke
Jan.	-	Ister Reederei	Wienertor (1344)	Cargo	16,250 (12,000)	486 × 66.25 × 46(32.5)	15.5	8 & W diesel	7,600	Fr. Krupp	A. G. Weser, Bremen
Jan.	4	Skibs A/S Nanset	Skogaas (520)	Tanker	19,500 (12,300)	525 × 719 × 40.1(30.67)	16.21 (T)	B & W diesel	9,300	Shipbuilders	Akers M.V.
lan.	11	Oswego Ore Carriers	Oswego Reliance	Ore	46,000	708.67(745) × 100.42	17	Geared	20,250	Shipbuilders	Kawasaki Dock
Jan.	12	Overseas Tankship Co	(1002) Caltex Brisbane	Tanker	(29,300) 45,800	× \$0.5(37.2) 695 × 104 × (36)	(T) 17.33	Geared	17,500	Shipbuilders	Hitachi S.B. & E.
lan.	13	National Development	(3843) Philippine President	Cargo	(30,000)	475.67 × 63.67 × 41	18.25	9-cyl Sulzer	12,000	Shipbuilders	Co, Innoshima Uraga Dock
Jan.	14	Corp Hagb. Waage, Oslo	Osmena (767) Runa (432)	Bulk	(9,500) 22,800	(30.95) 525.95(560.5) × 71.9	17.3	diesel 8-cyl diesel	10,000	Gotaverken	Bergens M.V.
Jan.	17	Saronic Transport	Aetolia (553)	Carrier Bulk	21,000	×48(34.33) 547.95×74.2×(44)	(T) 18.4	Geared	12,000	Shipbuilders	Ishikawajima-
Jan.	18	Corp. Liberia Kotaka Kisen Kaisha	Ginryu Maru (183)	Carrier Tanker	(13,200) 4,170	_	12.8	turbine Diesel	2,350	-	Harima H.I., Aioi Sanoyasu Dockyari
	20	Rederi A B Sirius	Tenos (652)	Cargo	(2,800) 7,817	410.1(454.1)×60×	16.1	9-cyl B & W	7,400	Shipbuilders	Mitsui S.B. & E.
	20	Sig. Bergesen & Co	*Bergebig (763)	Tanker	(5,776) 45,750	28.1(25) 696(743) × 100.25	17.5	diesel Geared	19,000	A.E.G.	Deutsche Werft
	26	Matsuoka Kisen	Shoan Maru (70)	_	(29,500) 8,500	× 49.5(37.2) (421.5) × 56.58 ×	14.65	turbines 5-cyl B & W	4,450	Mitsui S.B. &	Fujinagata S.B. Co
	26	Kaisha		Cargo	(5,900) 34,240	(26.25) 687.67 × 88 × 47(35)	16.75	diesel 12-cyl G.V.	15,000	E. Co Shipbuilders	Uddevallavarvet
		Fearnley & Eger, Oslo	Fernmount (186)		(21,905)	525.67(557.75) ×71.75		diesel 8-cyl M.A.N.	9,000		
	26	A/S Athene v/Jorgen Borg	Ariadne (453)	Tanker	19,900 (12,876)	× 40.1(31)	15.6	diesel		Shipbuilders	Kockums M.V.
	30	Govt. of Indonesia	Gunung Gunter (262)	Cargo	5,000 (3,800)	(357) × 52.58 × (21.33)	15	5-cyl M.A.N. diesel	3,300	Mitsubishi Yokohama	Hakodate Dock
	30	Shinto Kaiun Kaisha	Toyo Maru No 5 (169)	Cargo	3,500 (2,550)	257.58(297.75) × 44 × 22.9(18.9)	14	6 cyl B & W diesel	2,550	Mitsui S.B. & E. Co	Osaka S.B. Co
Jan.	31	Shin-Hitachi Kisen Kaisha and Shinnihon Steamship Co	Kiiharu Maru (3884)	Tanker	(21,000)	646.1 × 86.42 × 45.75	16.75	12-cyl B & W diesel	15,000	Shipbuilders	Hitachi S.B. & E. Co, Innoshima
Feb.	-	Soc. Maritime Shell	Sitala (X19)	Tanker	73,000 (49,363)	808.75 × 116.42 × 60.33(43.25)	16.5	Geared	22,000	Shipbuilders	Ch. de L'Atlantiqu
Feb.	-	A B Svenska Lloyd	Italia (1069)	Cargo	4,600	321 × 47.5	15	8-cyl G.V. diesel	3,000	Shipbuilders	Lindholmens Varv
Feb.	2	A S Besco, Oslo	Holthill (352)	Cargo	12,800 (8,943)	441.75(487) × 61.5 × 39.5(30)	15	8-cyl diesel	6,600	Gotaverken	Oskarshamns
Feb.	9	Trafik A/B Grangesberg- Oxelosund	Aurivaara (750)	Bulk carrier	(10,820)	450(490) × 64 × 42.5 (29.1)	14.25	7-cyl diesel	5,000	Shipbuilders	Gotaverken
Feb.	16	Wilh, Wilhelmsen	Toscana (533)	Tanker	36,400 (22,895)	(682.42) × 87 × 48.5 (36.5)	16.5	12-cyl B & W diesel	15,000	Shipbuilders	Eriksbergs M.V.

* Sold prior to handing over to Leif Hoegh & Co A/S, Oslo

The FBI conference "Invest in the Future," held in Buxton in September 1960, discussed the problems of recruiting and developing managers, particularly for small and medium sized firms. Many small firms have had difficulty in keeping abreast with the changes in educational facilities since the war. The Federation has now published a handbook entitled Further Education for those in Industry and Commerce (price 6s) to bring up to date the many different aspects of further education as they concern the employer and trainee in his employment. The booklet deals with recruitment and training, types of technical commercial colleges and courses, the growth of part-time release, the Industrial Training Council, group training schemes, the financial aspects of further education and the employer's contribution to further education.

A copy of the *Book of the Year*, published by Shell-Mex & BP Ltd, Shell-Mex House, Strand, London WC2, has been received. This is an annual publication produced primarily for the company's own staff and posted to the home of each employee and pensioner. Issued each January, the book describes some of the achievements of Shell-Mex and shows some aspects of the life of this nation in which these achievements play a part—the theme this year is "Youth". Following a message by Sir John Hunt on this subject, there are chapters on Sea Scouts and boating, on the Outward Bound Trust, flying and gliding, on tours by motor coach and on the problems of a young couple setting up their first home. The book is beautifully produced and contains drawings and designs by Laurence Scarfe.

MARITIME NEWS IN BRIEF

Verseas visitors to Britain in 1960 numbered 1,669,490—20 per cent more than in 1959, according to the British Travel & Holidays Association. The year's total was completed in December with the arrival of 84,620 visitors—21 per cent more than in the same month in 1959. Visitors from the United States in December increased by 21 per cent to 13,100, bringing the total number of visitors from the U.S. in 1960 to 426,640—an increase of 20 per cent over the previous year. European visitors in December numbered 35,770. This was an increase of 11 per cent on the month and brought total arrivals for the year to 776,920—an increase of 16 per cent over 1959.

MR GEORGE JAILLER, formerly marine general manager of Rye-Arc Ltd, has been appointed to the board as marine director. He will be responsible for all shiprepairing activities and will also be in charge of the modernisation of Mills & Knight Ltd, the old-established Thames shiprepairing firm which Rye-Arc purchased last year. Mr Maurice W. Dunham has been appointed sales manager and assistant to the sales director.

MR G. A. H. Jones and Mr S. J. L. Hill have been appointed directors of Powell Duffryn Ltd. Mr Jones is managing director of Stephenson Clarke Ltd and Mr Hill is managing director of Cory Brothers & Co Ltd, two of the principal subsidiaries.

BTR INDUSTRIES LTD have made the following appointments to the boards of a number of its subsidiary companies. Dr W. D. Scott as chairman, Mr C. G. Erlam as managing director and Mr J. J. Molins as assistant managing director of Microcell Ltd; Dr Scott as chairman and Dr G. Ader as managing director of Artrite Resins Ltd; Mr Erlam as chairman, Mr P. L. Watson and Mr J. A. Hemingway as directors of Palmer Aero Products Ltd; and Dr Scott as chairman and Mr D. J. Hodgson as managing director of Glass Yarns & Deeside Fabrics Ltd.

MR JACK BAINBRIDGE has been re-elected chairman, and Mr J. M. Pumphrey deputy chairman, of the Blyth Harbour Commission.

MR H. C. TREE, joint assistant secretary of the Institute of Transport, has retired. He completed more than 35 years' service with the Institute.

MR J. C. RIEGER has been elected president of Wilson Marine Transit Co, of Cleveland, succeeding the late Mr A. T. Wood. The firm is a major carrier of iron ore, coal, grain and other bulk commodities on the Great Lakes.

SIR RICHARD E. YEABSLEY, who has accepted an invitation from the chairman of Bailey (Malta) Ltd to join the board of that company, will not offer himself for re-election as a director of Johnson & Phillips Ltd when he retires by rotation at the next annual general meeting.

MESSRS Ir J. v. d. Meer and P. M. Pott, previously directors of Verolme Machinefabrick Ysselmonde, have been appointed directors of Verolme United Shippards, while sub-director Mr C. Bakker of Verolme Machinefabrick Ysselmonde has been appointed a director.

MR HORACE W. GOODWIN, who founded the Southampton firm of H. W. Goodwin & Co Ltd., ships' chandlers, has died.

MR P. J. DAGLISH, who joined D. Napier & Son Ltd as a special executive last September, has been appointed commercial director.

MR G. D. Toogood has been appointed sales manager of the Superheater Co Ltd. Mr Toogood is a director of Heat Exchangers Ltd.

Boac passengers will be able to enjoy the advantages of air/sea interchange rebated travel facilities on a world-wide scale from April 1. This scheme, which allows a passenger to travel partly by air and partly by sea, will be operated by the Corporation in conjunction with all the major steamship companies. Passengers travelling one way by air and one way by sea or round the world by a combination of air and sea routes will, in most cases, be able to benefit from the fare discount advantages which BOAC allows for return or circle trips. They will also be able to change the itinerary en route without losing this advantage.

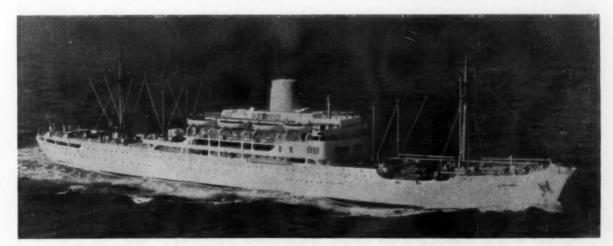
THE death has occurred of Mr Fred Bedford, a former director of Clan Line Steamers Ltd and a number of its subsidiaries.

MR DOUGLAS MANSELL has been appointed manager of Bethlehem Steel Company's Brooklyn shiprepair yards, succeeding Mr T. A. Crane, who has retired.

MR J. R. RICHARDSON has been appointed London marine sales manager of Mirrlees, Bickerton & Day Ltd in succession to Mr M. W. Dunham who has taken up another appointment.

MR L. J. Brown and Mr D. Walker have joined the board of Johnson & Phillips Ltd.

SMITH'S DOCK CO LTD, North Shields, has won a large South American ship repair order. The ship is the tanker Juvenal, which requires extensive survey steelwork repairs, which will provide work for several weeks.



NEW P & O LINER

The new P & O liner "Chitral", which is the subject of comment on an earlier page, sailed from London Docks on Tuesday on her first voyage for her new owners. Formerly the "Jadotville", the "Chitral" will be joined by her sister ship "Cathay", ex "Baudouinville" on April 12. These two vessels replace the "Carthage" and "Corfu" on the P & O-Orient Lines extended service from the United Kingdom to India, Singapore and the Far East including Japan

MR W. G. Brown, who is to retire as general manager of the Tyne Improvement Commission, on August 7 is to be succeeded by Mr A. J. Clarkson, at present assistant general manager. Mr V. A. Thompson, at present assistant treasurer, will become treasurer on October 11.

THE MITSUI LINE has been approved "conditionally" as a full member of the Japan-European Freight Conference from June 1.

SWISSAIR'S cargo traffic in 1960, amounting to 28,169,000 ton-kilometres, was 19 per cent more than the preceding year's figure of 23,712,000 tkm. Total capacity offered by the airline amounted to 243,003,000 tkm, or 23 per cent more than in 1959.

A POWER catamaran—one of the range built by American Marc Incorporated, of Inglewood, California, is now being made in Britain under licence by Woodmet Limited, of Globe Lane, Dukinfield, Cheshire. The Catamarine is a 16ft six-passenger fibreglass boat ideal for cruising. Another American Marc boat Woodmet is manufacturing under licence is the Baroda, a 14ft fibreglass vessel, fast enough for water-skiing, yet ideal for leisurely cruising.

BOAC is to open a new route to South America on April 11 when its Rolls-Royce powered Boeing 707s will start operating between London and Lima. It will be the only through service offered between London and Lima and will be operated initially twice weekly in each direction.

VIKING MARINE CO LTD is building a new factory on a three-acres waterfront site at Gosport, Hants. Production space occupies 44,000 sq ft, and is due to be operating initially in June. The main production will be devoted to fibreglass lifeboats although the company will continue to manufacture aluminium craft.

THE LARGEST iron-ore cargo to be discharged in the United Kingdom is due to arrive in the River Tyne on March 14 for unloading at Tyne Dock. The Liberian ship *Ore Meridian* is carrying 35,000 tons of ore to the Tyne from Venezuela. The previous largest ore cargo handled on the Tyne was about 31,000 tons.

BLYTHSWOOD SHIPBUILDING CO LTD, of Scotstoun, Glasgow, has signed a contract with Texaco Panama Inc, of New York, for the reconstruction of the T2 tanker Texaco London. This involves the building of a new mid-body and bow, and the joining of the new section to the existing aft section.

THE American Society of Naval Architects & Marine Engineers has added to its technical publications a Code on Installation and Shop Tests, representing agreed-upon minimum shop and installation tests for the use of ship designers, shipbuilders, and shipowners. The new Code is the result of over three years' work by the M-10 Panel of the Society's Technical and Research Committees.



THE "CERDIC FERRY"

The latest of the "drive-on, drive-off" vehicle ferries of the Atlantic Steam Navigation Co Ltd, the "Cerdic Ferry", was launched recently at the Troon shippard of the Ailsa Shipbuilding Co Ltd. A sister ship "Doric Ferry" will be launched in the summer. The "Cerdic Ferry" can carry up to 100 road haulage vehicles and 35 passengers and is to be used on the Tilbury|Antwerp and Tilbury|Rotterdam service of the owners

THE Towage & Salvage Company n.v. Bureau Wijsmuller, Ymuiden, Holland, has added to its fleet the wreck dispersal and salvage vessel *Help*, 783 grt. The *Help* is the biggest vessel of the Wijsmuller fleet.

THE Eastern Region of British Railways has recently carried out the complete modernisation of the wharfside equipment at Blackwall. Two new rail-travelling electric cranes have been installed—replacing three machines, originally steam-powered, which had been in service for between 50 and 70 years.

Two of the three partners of the former Hamburg Chicago Line will operate the liner service between the Continent, Canada and Chicago with weekly sailings under a new name, Kirsten Lea Lines. Ships for this service will be furnished by A. Kirsten and Leo Adams Reederei.

THE ORE NAVIGATION CORPORATION has applied for construction-differential subsidy assistance in the construction of two 50,000-dwt American-flag bulk carriers. The new ships are to replace the 25,000-dwt ore carriers Feltore and Oremar, negotiations for the sale of which are now under way.

KISHON PORT, near Haifa, Israel, is to be enlarged by the addition of two berths which will accommodate vessels of up to 7,000 tons,

THE SVENSKA AMERIKA LINIEN A/B, Gothenburg, have decided to equip their passenger ship *Kungsholm* with Denny Brown stabilisers. The work will be executed by the Nederlandsche Dok en Scheepsbouw Maatschappij, in Amsterdam, in the autumn.

WHESSOE LTD has moved to 40 Broadway, London SW1.

MR J. R. BROCKLEHURST, underwriter of Elders Insurance
Co Ltd, has been elected chairman of the Liverpool Underwriters' Association. Mr E. G. Dodd is the new deputy chairman

FIFTY YEARS AGO

From THE SHIPPING WORLD of 1 March 1911

Not in recent years has an inquiry into the loss of a ship attracted so much attention as that of the Waratah, which was concluded last Wednesday. Much of the evidence given before the Court of Inquiry was sensational and wild; but it may at least be said that the Court were guided not by non-expert witnesses who spoke of stability, rolling and seaworthiness, but by scientists who knew the ship, and had to do with her professionally. The Court found that (a) that the Waratah was lost on July 28, 1909, in a gale of exceptional violence; (b) that she was last seen by the Clan MacIntyre heading in a direction where she would encounter the full force of the storm; and (c) that the vessel capsized; 'but what particular chain of circumstances brought about this result must remain undetermined." The Court found that the Waratah "had sufficient stability," was "in proper trim," and "in a seaworthy condition."

The new Cunard liner Franconia sailed from the Mersey on Saturday afternoon on her maiden voyage to New York. After making a cruise to the Mediterranean from the latter port, she will be placed on the Boston service with the Saxonia and Ivernia. On her present voyage she carries 100 first, 320 second, and 550 third class passengers.

The directors of the P. & O. Company have contracted with Messrs. Caird & Co., Greenock, for the building of two additional steamers of the Nile class. These ships will be about 7,000 tons gross and will have accommodation for upwards of 100 passengers in the first and second saloons. The four vessels of this class now running—Nile, Namur, Nyanza and Nore—were specially designed for the company's intermediate services by which passengers are conveyed to India, China and Japan without transhipment, and at lower fares than those ruling in the mail steamers.

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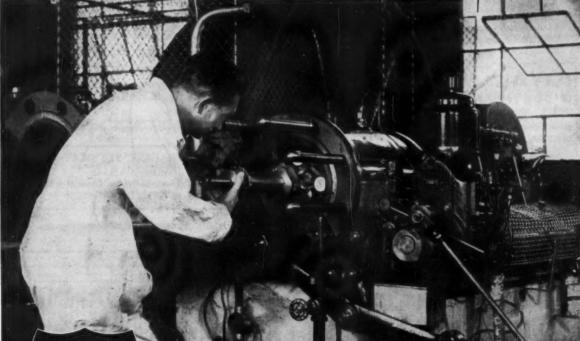
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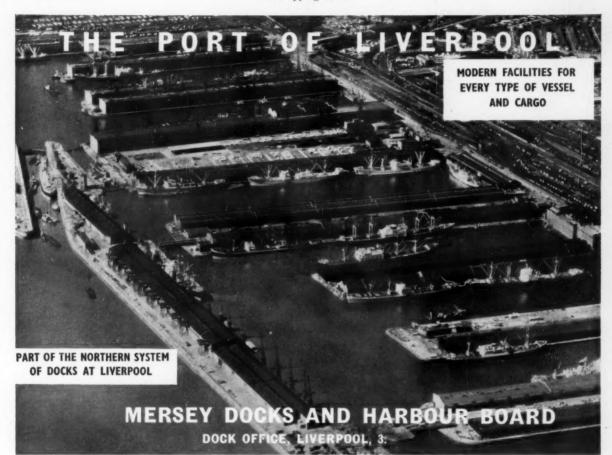
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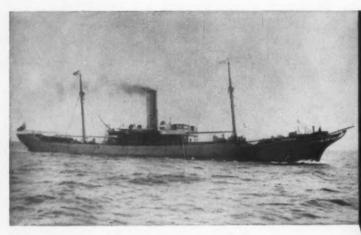
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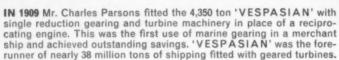
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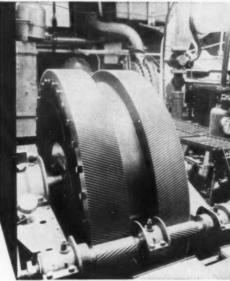
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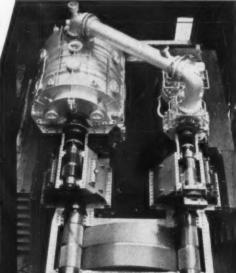






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